

ANNUAL REPORT

OF THE

DIRECTOR OF THE MINT

TO THE

SECRETARY OF THE TREASURY

FOR THE

FISCAL YEAR ENDED JUNE 30, 1874.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1874.



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REPORT

OF

THE DIRECTOR OF THE MINT.

OFFICE DIRECTOR OF THE MINT,
Treasury Department, October 13th, 1874.

SIR: In compliance with the provisions of the coinage act of 1873. have the honor to submit the following report of the operations of the mints and assay-offices for the fiscal year ended June 30, 1874.

The amounts of gold and silver deposits and purchases, coins struck, and bars manufactured, were as follows:

DEPOSITS AND PURCHASES.

Gold deposits	\$68,861.594 97
Silver deposits and purchases.....	15,122,151 31
Total amount received and operated upon.....	\$83,983,746 28

Deducting redeposits, bars made and issued by one institution and deposited at another—the deposits were—

Gold.....	\$49,142,511 06
Silver.....	11,484,677 73
Total	60,627,188 84

COINAGE.

	Pieces.	Value.
Gold.....	3,186,699	\$50,442,690 00
Silver.....	13,273,380	5,983,601 30
Minor coinage.....	19,668,500	411,925 00
Total	36,128,579	56,838,216 30

BARS.

Fine gold.....	\$5,037,503 20	
Unparted gold	10,584,705 41	
Bars from standard British gold coin.....	5,922,836 23	
Bars from light United States gold coin.....	9,940,773 16	
		31,485,815 00
Fine silver.....	5,937,490 68	
Unparted silver.....	910,308 50	
		6,847,799 18
Total gold and silver.....		38,333,617 18

The distribution of the gold and silver bullion deposited and purchased, including redeposits, was as follows:

REPORT OF THE DIRECTOR OF THE MINT.

MINT UNITED STATES, PHILADELPHIA.

Gold deposits, (including abraded coin).....	\$24, 886, 452 5
Silver deposits and purchases.....	3, 060, 829 6
Total	27, 947, 282 2

MINT UNITED STATES, SAN FRANCISCO.

Gold deposits.....	\$22, 066, 181 6
Silver deposits and purchases.....	2, 868, 607 7
Total	24, 934, 789 4

MINT UNITED STATES, CARSON.

Gold deposits.....	\$2, 213, 041 9
Silver deposits and purchases	2, 875, 116 8
Total	5, 088, 158 7

MINT UNITED STATES, DENVER.

Gold deposits.....	\$962, 803 8
Silver deposits	26, 969 2
Total	989, 773 0

UNITED STATES ASSAY-OFFICE, NEW YORK.

Gold deposits.....	\$18, 611, 959 5
Silver deposits and purchases	6, 288, 761 5
Total	24, 900, 721 1

UNITED STATES ASSAY-OFFICE, BOISE, IDAHO.

Gold deposits.....	\$112, 466 5
Silver deposits	1, 791 5
Total	114, 258 0

UNITED STATES ASSAY-OFFICE, CHARLOTTE, N. C.

Gold deposits.....	\$8, 688 8
Silver deposits	74 6
Total	8, 763 5

The coinage at the different mints for the fiscal year was as follows

Description.	Pieces.	Value.
MINT UNITED STATES, PHILADELPHIA.		
Gold coinage.....	1, 917, 160	\$26, 467, 32
Silver coinage, (trade-dollars)	1, 058, 200	1, 058, 20
Silver coinage, (subsidiary coin).....	7, 948, 500	1, 904, 93
Minor coinage.....	19, 668, 500	411, 92
Total	30, 592, 360	29, 842, 39
MINT UNITED STATES, SAN FRANCISCO.		
Gold coinage.....	1, 168, 000	22, 302, 50
Silver coinage, (trade-dollars)	2, 121, 000	2, 121, 00
Silver coinage, (subsidiary coin).....	1, 593, 000	429, 50
Total	4, 882, 000	24, 853, 00
MINT UNITED STATES, CARSON.		
Gold coinage.....	101, 539	1, 672, 860 0
Silver coinage, (trade-dollars)	409, 700	409, 700 0
Silver coinage, (subsidiary coin).....	142, 980	60, 266 3
Total	654, 219	2, 142, 826 3
Total coinage	36, 128, 579	56, 838, 216 3

The bars made and issued at the mints and assay-offices were as follows:

MINT UNITED STATES, PHILADELPHIA.

One gold bars.....	\$95,316 21
One silver bars	319,821 49
Total	415,137 70

MINT UNITED STATES, SAN FRANCISCO.

Unparted gold bars.....	\$9,025,309 58
Unparted silver bars.....	209,071 53
Total	9,234,381 11

MINT UNITED STATES, CARSON.

Unparted gold bars.....	\$475,436 61
One silver bars	\$1,672,198 06
Unparted silver bars.....	672,401 49
Total	2,344,599 55
Total	2,820,036 16

UNITED STATES ASSAY-OFFICE, NEW YORK.

One gold bars.....	\$4,942,186 99
Bars from standard British gold coin	5,922,836 23
Bars from light United States gold coin.....	9,940,773 16
One silver bars	20,805,796 38
Total	3,945,471 13
Total	24,751,267 51

MINT UNITED STATES, DENVER.

Unparted gold bars.....	\$962,803 82
Unparted silver bars	26,969 27
Total	989,773 09

UNITED STATES ASSAY-OFFICE, BOISE, IDAHO.

Unparted gold bars.....	\$112,466 54
Unparted silver bars.....	1,791 52
Total	114,258 06

UNITED STATES ASSAY-OFFICE, CHARLOTTE, N. C.

Unparted gold bars.....	\$8,688 86
Unparted silver bars.....	74 69
Total	8,763 55

The amount in bars transmitted from the United States assay-office, New York, to the mint at Philadelphia for coinage was—

Gold	\$18,704,101 70
Silver.....	2,613,636 03
Total	21,317,737 73

Compared with the previous year, there was an increase of \$8,924,165.52 in the amount of gold operated upon, \$2,804,761.88 in silver operated upon, \$15,193,352.50 in gold coinage, \$3,037,805.80 in silver coinage, and 10,816,086.57 in bars prepared.

REPORT OF THE DIRECTOR OF THE MINT.

EARNINGS AND EXPENDITURES.

The following summary exhibits the earnings and expenditures for the fiscal year:

EARNINGS.

	Mints.				Assay-offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Boise.	
Coinage charge	\$32,646 10	\$51,560 92	\$5,268 96					\$82,475 9
Parting & other charges	5,816 06	12,212 34	47,547 84	21,237 20	\$19,078 98	\$267 51	\$287 16	146,447 0
Gain by coinage of subsidiary silver coin.	79,270 92	28,653 79	3,250 77					111,175 4
Minor coinage profits	271,612 58							271,612 5
Sale of by products and old material.	682 56		18,720 40		17,613 40			37,022 3
Residue flaxes and sweepings.	1,043 83		7,871 29	1,178 31	324 59			10,418 0
Medal profits	4,018 80							4,018 8
Surplus bullion, (melter and refiner.)					22,142 16			22,142 1
Assay of ores	147 75				300 00			447 7
Total earnings.....	385,244 60	95,427 05	82,659 26	2,415 51	119,459 13	267 51	287 16	685,760 2

EXPENDITURES.

	Mints.				Assay-offices.			
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Boise.	Total.
REGULAR ORDINARY ACCOUNT.								
Salaries.....	\$24,360 00	\$26,000 00	\$16,593 56	\$9,679 35	\$20,700 00	\$2,700 00	\$5,400 00	\$115,372
Wages.....	143,476 20	252,907 98	81,491 12	15,313 00	85,305 06	292 00	3,000 00	581,785
Contingent.....	53,977 80	70,411 97	103,562 94	5,000 00	55,000 00	908 24	2,464 90	291,325
Freight.....								
Ores and coins.....	207 15							207
MINOR COINAGE ACCOUNT.								
Wages.....	120,451 83							120,454
Incidentals.....	30,529 96							30,529
Cent-metal.....	40,992 48							40,992
Freight.....	13,358 16							13,358
Difference between assay value of sweeps sold and amount realized.....	1,487 05		2,320 24		4,201 79			8,009
Wastage.....	29,393 06	6,717 12	5,906 02					42,016
Total expenditures.	468,176 69	356,037 07	309,873 88	29,992 35	165,206 85	3,900 24	10,864 90	1,244,051

* This item embraces wastage at Philadelphia Mint for fifteen months.

A moderate increase in the expenditures of the mints having taken place in the last two years, it is deemed necessary to explain the cause of the same, and which will appear from an examination of the annexed

able, presenting the operations on gold and silver during the last fiscal year, and the average of the ten years ended June 30, 1872:

Period.	Amount operated upon.		Coinage.	
	Gold.	Silver.	Gold.	Silver.
Fiscal year ended June 30, 1874	\$68,861,594 97	\$15,122,151 31	\$50,442,690	\$5,983,601 30
Average for ten years, ended June 30, 1872.....	31,935,284 25	3,042,346 36	22,786,289	1,275,623 90

Period.	Bars prepared.			
	Fine gold and bars of standard or above.	Unparted gold.	Fine silver.	Unparted silver.
Fiscal year ended June 30, 1874	\$20,901,112 59	\$10,584,705 41	\$5,937,490 68	\$910,308 50
Average for ten years, ended June 30, 1872.....	6,408,656 35	2,401,603 43	834,516 57	567,492 50

A comparison of the operations for the last fiscal year with the average result of the ten years ended June 30, 1872, will show the following percentages of increase:

	Per cent.
In gold operated upon, about	115
In silver operated upon, about	397
In gold coinage, about	121
In silver coinage, about	369
In fine gold bars, about	226
In unparted gold bars, about	340
In fine silver bars, about	611
In unparted silver bars, about	60

The above statement exhibits a great augmentation of business under the coinage act, and shows that the usefulness of the mints has been very much increased under the new organization.

RECOINAGE OF LIGHT GOLD COIN.

The recoinage of light gold coins, under the provisions of the fourteenth section of the coinage act, was continued at intervals during the fiscal year.

The following statement exhibits the recoinage from the 1st of July, 1872, to the 30th of June, 1873:

Tale value.	Net value.	Weight.			Loss.				Percent- age of loss.	
		Standard.	Before melting.	After melting.	By recoinage.	By abrasion.	In melting.	By dirt.	In recoinage.	By abrasion.
Dollars.	Dollars.	Ounces.	Ounces.	Ounces.	Dollars.	Ounces.	Oz.	Oz.	(*)	(*)
32,717,189 50	32,523,620 52	1,758,548.93	1,748,879.85	1,748,379.76	193,568.98	9,669.08	500.09	249	(*)	(*)

* Over one-half per cent.

The loss by abrasion is shown to have been but little over one-half of one per cent., and much less than the rate given by the best writers as the average loss on coins from that cause.

The renovation of the gold coins is now about complete, except as to the light or worn pieces in circulation in the Pacific coast States and Territories; and if some provision were made for their withdrawal, the entire gold coinage would then be in good condition. It would appear to be true policy to have the coins referred to withdrawn from circulation; and if such withdrawal is to be at the expense of the public Treasury, as recommended in my last annual report, they should be received only at the mints, where the necessary time and means can be taken to detect and exclude such coins as have been artificially reduced in weight.

Provision should be made for their withdrawal before the resumption of specie payments, as after resumption such coins will naturally find their way east and enter into circulation, and when a loss is sustained upon any of them it will fall upon individuals who may not have the means of ascertaining their actual weight.

In connection with this subject, it should be remarked that the reduction in the weight of coins for fraudulent purposes has not been carried on to any extent in this country.

COINAGE FOR FOREIGN GOVERNMENTS.

Under the provisions of the act approved January 29, 1874, authorizing coinages to be executed at the mints for any foreign government applying for the same, applications for the execution of certain coinages have been received from two governments, and are now under consideration by the proper authority.

TRANSFER OF STAMPED MINT-BARS TO THE TREASURY.

An act authorizing in effect the keeping of part of the funds in the Treasury in the form of stamped mint-bars, and the application of the same to the redemption of coin-certificates or in exchange for gold coins at not less than par, and not less than the market-value, having been passed at the last session of Congress, an amount of such bars sufficient for any probable demand that may arise was by your order transferred from the bullion-fund of the assay-office in New York to the office of the assistant treasurer in that city. These bars, if not required by the public for commercial purposes, will be convenient for the Treasury to have coined into the smaller denominations of gold coin, should it at any time require the same, and which may be probable, as the gold coinage of late years, or since the suspension of specie payments, has been mainly in double eagles, and that denomination constitutes almost entirely the amount now in the Treasury.

PROBABLE DEMAND FOR COINAGE OF SMALL GOLD COINS.

Whenever the specie basis shall have been reached, a large coinage of the half and quarter eagles, will be necessary, but the mints can manufacture the same as rapidly as would be required or the bullion could be supplied for the purpose. We have now six different denominations of gold coin, which is a greater variety than is required. This being the case, and the three-dollar piece corresponding so nearly, as to weight, value, and size, with the quarter-eagle, and rarely used, its coinage

should be discontinued. The gold dollar is not a convenient coin, on account of its small size, and it suffers more proportionably from abrasion than larger coins. Its issue should, therefore, be confined to actual demands for it by depositors of bullion, and the requirements for change and retail transactions should be met with silver coin.

THE TRADE-DOLLAR.

The coinage of trade-dollars during the fiscal year amounted to \$3,588,900, the greater portion of which were exported to China, where they found a ready market, and continue to grow in favor for trade and exchange purposes. Owing to the limited capacity of the mints on the Pacific coast, we have not been able to meet the demand for these coins. The increased capacity of the new mint in San Francisco, to which operations will soon be transferred, and the addition of new machinery and appliances at the Carson mint, will enable us to meet the demand for all the coin, both gold and silver, which may be required on that coast for circulation and export.

The total issue of silver dollars from the organization of the mint to the 1st of April, 1873, at which time, under the provisions of the coinage act, their coinage was discontinued, amounted to a little over \$8,000,000. Adding \$1,378,500, the amount of trade-dollars coined during the first quarter of the current fiscal year, to the coinage for the year ended June 30, 1874, gives the issue as more than half of the total coinage of the old silver dollar during a period of nearly eighty years. Attention is invited to a memorandum in the appendix from the superintendent of the San Francisco mint, containing some interesting information in relation to the course of the trade-dollar.

PROPOSED ISSUE OF A TWENTY-CENT COIN.

A bill authorizing the coinage of a twenty-cent silver piece passed the Senate at the last session of Congress, but was not considered in the House of Representatives for want of time. The issue of a coin of that denomination will not only be in accordance with our decimal system of money, but will remove a difficulty in making change which now exists upon the Pacific coast and in Texas, where the five-cent copper-nickel coins do not circulate, and where it was formerly the practice to apply the term "bits," "two bits," and "four bits," respectively, to the fractions of the Spanish dollar which circulated there. The custom appears to continue, notwithstanding those coins have disappeared from circulation. Accordingly, if a payment of one bit is to be made, and a twenty-five cent coin be used for the purpose, a ten-cent coin (one bit) is returned as the proper change, five cents being lost in the transaction by the purchaser. The issue of a twenty-cent coin will no doubt remove this difficulty. It may be added that, although this "bit" system appears to be quite an unimportant matter, few visitors to the Pacific coast fail to suffer some vexation at least from its existence.

Inquiry is occasionally made as to why the coinage of the silver five-cent piece was discontinued. The reason appears to have been that it would, on the resumption of specie payments, be likely to expel from circulation and drive into the Treasury for redemption the five-cent copper-nickel coins. At first glance this may appear improbable, but when it is considered that the original law authorizing the issue of

the copper-nickel five-cent coin provided for its redemption in lawful money of the United States, it will be seen that there must come a time when it will be superior to the five-cent silver coin, and for the reason that it will be exchangeable for notes redeemable in gold coin. The silver coin, which would have a greater nominal than intrinsic value, and not redeemable in lawful money, or gold coin, would become the inferior currency.

The five-cent copper-nickel coin having been issued to the extent of over \$5,000,000, and the amount being sufficient for a token coin of that denomination, the provision of law discontinuing the issue of the five-cent silver coin appears to have been proper.

THE ACT FIXING THE CUSTOM-HOUSE VALUATION OF THE POUND STERLING AND PAR OF EXCHANGE WITH GREAT BRITAIN.

The present report being the first one made since the act of March 3, 1873, establishing the custom-house valuation of the sovereign or pound sterling, and fixing the par of exchange with Great Britain, went into operation, some reference to the provisions, operation, and effect of the same would appear to be proper.

The first section prescribes as a rule that the value of foreign coin expressed in the money of account of the United States shall be that of the pure metal of such coin of standard value, and that the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the first day of January by the Secretary of the Treasury.

The second section declares that in all payments by or to the Treasury, whether made here or in foreign countries, where it becomes necessary to compute the value of the sovereign or pound sterling, it shall be deemed equal to four dollars eighty-six cents six and one-half mills, and that the same rule shall be applied in appraising foreign merchandise imported, where the value is by the invoice in sovereigns or pounds sterling, and in the construction of contracts payable in sovereigns or pounds sterling. It also declares that valuation to be the par of exchange between Great Britain and the United States.

The third section repeals all acts and parts of acts inconsistent with the foregoing provisions.

In order to comply with the provisions of the first section, it became necessary to obtain accurate information in relation to the standard coins of the various nations of the world, and for that purpose inquiries as to the unit of the money of account of foreign countries respectively, and the amount of pure gold or silver declared by law to represent the same, were made in the form of a circular-letter addressed through the Department of State to the representatives of the United States in foreign countries. The information asked for was courteously furnished by the proper official authorities of the different nations; and after being received, the estimation of values by the Director of the Mint, and proclamation of the same by the Secretary of the Treasury, were made.

In converting invoices of foreign merchandise stated in foreign moneys of account, into the money of account of the United States, it became necessary to make such conversion according to values ascertained under the rule so broadly laid down in the first section of the law. The employment at the custom-houses of the values thus ascertained led to some dissatisfaction, the duties being increased, not in proportion to the slightly-enhanced valuation of the coins, but by an

artificial rule in laying duties, and appeals in certain cases were taken, one of which, involving the value of the franc, was recently tried before the United States district court of the southern district of New York, and decided adversely to the United States, the court holding that the first section of the act of March 3, 1873, and the act of March 22, 1846, fixing the value of the franc at 18.6 cents, do not cover or embrace the same subject, and that the last-named act is not repealed. The case has been appealed, and, should the decision be affirmed by the Supreme Court, a return to the old valuation on all foreign coins except the pound sterling would necessarily follow. It is probable, however, that Congress would, in that event, pass an explanatory law or revise and correct the undervaluations. The question being one of a technical character, a brief reference to the history of the old valuations and the principle on which the new rule of valuation is based appears to be proper.

The valuations under former laws were based upon the assay of actual coins which had been in circulation for a number of years, and were reduced by the attrition of circulation so as not to represent the values they were originally intended to denote. The valuation of coins under the system of assays controlled the subject for the first forty years of the Federal Government, during which time foreign coins were a legal tender at their intrinsic value, and receivable for duties. When received by the United States, however, it was provided that they should be sent to the Mint for coinage under our monetary system, and this being the case, it was necessary that the value fixed on such coins should not exceed the actual value of the bullion they contained, or otherwise a loss would have occurred in the recoinage. This was the starting point of undervaluation in connection with the collection of customs-duties. When, in 1857, all acts making foreign coins a legal tender in this country were repealed, and we no longer had to deal with such coins *as money*, the system at once became defective.

Under the new act, the basis of valuation being the quantity of pure metal contained in foreign coins of standard value, expressed in the money of account of the United States, it is necessary, before proceeding further, to explain the true meaning of the words "coin of standard value." Briefly stated, a coin of standard value is one representing the unit of the money of account, or its multiples and divisions, and containing the exact quantity of pure metal prescribed by the law authorizing its issue. The term also applies to a coin, the bullion and nominal value of which are the same, as against a coin from which seignorage has been taken, and whose nominal value exceeds its bullion value. In estimating the value of the standard coins of the world, we are therefore practically required to deal with legally-established standards, and not, as under former laws, with individual coins, which may be more or less diminished in weight.

Under former laws, the undervaluation of the sovereign or pound sterling was only about one-half of one per cent., while in the case of the franc of France it was much greater, amounting to nearly four per cent. The fact that so great a difference existed between the valuation of coins of different countries showed conclusively that legislation was necessary, and the establishment of a rule for ascertaining values, based on sound principle and universal in its application, appeared to be the most simple and just remedy.

It will, of course, be understood that the undervaluation of foreign coins leads to a corresponding reduction in the proper assessable surface of invoices of foreign merchandise, and diminishes the duties to be paid to the Government. The increase of the assessable surface of in-

voices under the new law is the real and only cause of complaint on the part of importers, who claim that it exacts from them duties in excess of the amount contemplated by the laws under which they are assessed.

Under the old laws, the sovereign or pound sterling was converted into United States money at the rate of \$4.84, while under the new law the rate is \$4.86.65. Invoices stated in francs, under the act of March 22, 1846, were converted at the rate of 18.6 cents to the franc, while under the new law the rate is 19.3 cents. The value of the sovereign and franc of the present day, as determined by recent United States Mint assays, is as follows:

New sovereign.....	\$4 86 $\frac{1}{2}$
Average worn pieces.....	4 85 $\frac{6}{10}$
Twenty francs.....	3 84 $\frac{7}{10}$

which gives the assay-value of the franc* as 19 cents 2 $\frac{3}{10}$ mills. These values correspond very nearly to the value as estimated on the basis of declared standards, and show that the objections which have been raised against the new law would not be removed if the values were to be fixed on the average assays of existing individual coins.

Reference should here be made, in connection with this subject, to the important changes which have taken place during the last three years in foreign money standards, and the complications likely to arise therefrom in the collection of customs duties. The new monetary unit of the German Empire is the gold mark, and which must, according to law, soon take the place of the monetary units long known as the thaler of North Germany, florin of South Germany, marc banco of Hamburg, and louis d'or thaler of Bremen, and in which invoices of merchandise exported to the United States continue to be stated. It is a well-known fact that monetary systems and monetary terms to which the people of any country have long been accustomed do not readily give way to new ones, even when penalties may be enforced, and it must be expected that invoices of merchandise exported from Germany will continue to be made for some time to come either in thalers or florins, unless exporters be required to make out their invoices in marks, on and after the law declaring the mark to be the unit of account becomes operative in all the states of the German Empire. The same remarks will apply to Spain, where the peseta has superseded or is to supersede the piece of eight reals as the monetary unit. These changes afford additional reasons in favor of a general rule of valuation based upon declared standards.

Much stress has been laid upon the fact that the second section of the law specifically fixes the value of the sovereign or pound sterling, and the inference has been drawn that the intention of Congress was to change only the valuation of that coin, and not alter the value of other foreign coins as fixed in the then existing laws, and this notwithstanding the fact that while, as before stated, the sovereign was undervalued only one-half of one per cent., some other coins, and notably the franc, were undervalued nearly four per cent.

When the reason for the special enactment relative to the sovereign or pound sterling is explained, it will be seen that the inference above referred to is incorrect. The old fictitious par of \$4.44 $\frac{4}{9}$ to the pound, and the complicated mode of computation which it rendered necessary, were objectionable and disadvantageous in many respects, and few per-

*No gold piece of one franc coined.

sons outside of dealers in foreign exchange understood the meaning of the quotation "sterling exchange, $109\frac{1}{2}$," while every one of ordinary intelligence readily comprehends the meaning of "sovereigns, $\$4.86\frac{1}{2}$," the former having been under the old system the equivalent of the latter under the new. The quotation of $109\frac{1}{2}$ meant $9\frac{1}{2}$ per cent. on and added to $\$4.44\frac{4}{5}$, the latter having been the value, at an early period of our colonial history, in Spanish silver dollars, of 240 pence British money.

The fictitious par of exchange on Great Britain above referred to had long been in use, and its voluntary abandonment appearing to be very improbable, prohibitory legislation, the intention of which should be clearly expressed, was deemed necessary. A separate section, embracing the necessary provision, was therefore enacted.

By reference to the following extract from the report of the Finance Committee of the Senate, on the bill reported by it, and which passed both houses without amendment, it will be seen that the committee ascertained the value of the sovereign under the rule laid down in the first section of the act to determine the value of foreign coins generally, and not from the assay of coins.

* * * * *

As 23.22 grains troy is the weight of the pure gold in the standard dollar, and 113.006+ grains troy the weight of the pure gold in the standard sovereign, the quotient resulting from dividing the second number by the first is the value of pure gold in the standard sovereign, as expressed in dollars and cents, which gives us $\$4.86656+$. This is the true or intrinsic value of the sovereign or pound sterling, as expressed in the standard dollar of the United States at the present time.

By what has been stated it will be seen that the true or intrinsic value of the sovereign of Great Britain, as expressed in the money of account of the United States, is $\$4.86656$; that the congressional valuation is $\$4.84$; and that the commercial valuation, known as the *par of exchange* or *technical par*, is $\$4.44\frac{4}{5}$.

The first is the value of the pure gold in the sovereign, as expressed in dollars and cents; and, as a measure for the comparison of the moneys of the two countries is sought, that which will give the true value of the pure gold in their standard coins would seem to fill the requisite conditions.

The second is the valuation given by Congress, it being the average value of those actually tested in 1842. It is to be observed that it was the average worn or abraded British coin with which our standard coin was compared. Would it not be wiser to compare our standard coin with the British standard coin? If the British worn or abraded coin is taken as a standard, ought not our own worn and abraded coin to be compared with it?

It is the opinion of the committee that such a valuation should not be recognized by any of the Departments of the Government: and that they should use every means in their power abroad, as well as at home, to attain a system of exchange based on true or intrinsic values.

* * * * *

It therefore appears that the intention of Congress was to provide a general rule of valuation which should be applicable in all cases, and the value of the sovereign which was specifically fixed, but in accordance with the rule, was for the purpose of making the provision in relation to the par of exchange perfectly clear.

If the revenue system is so defective as not to admit of a correct valuation of foreign coins and moneys of account according to a just rule, applying equally in the case of all countries, and subject to alteration only when the money standard of a country is changed by law, it will be well to consider whether the remedy should not be found in the revision and correction of that system, rather than in a return to the old undervaluation of foreign coins.

The second section of the act prescribed the close of the year 1873 as the term for the discontinuance of the old rating of exchange, and prohibited contracts based upon the old fictitious par, but did not prescribe a rule for the quotation of sterling exchange.

In view of the important alterations in quoting sterling exchange, which the law contemplated, the Secretary of the Treasury, on the 17th of September, 1873, issued a circular inviting the attention of importers, exchange dealers, and the public generally to the provisions of the act, and recommended that exchange should be quoted in dollars and cents to the pound sterling, or in pence and fractions to the dollar; and as it was desirable that the change then about to be made in the United States should be adopted in Great Britain, copies of the circular, with an explanatory letter, were sent, on the 9th of October, 1873, to the Hon. A. G. Cattell, confidential agent of the Treasury Department in London, with a view to have the subject brought to the attention of the London Stock Exchange and bankers dealing in American securities. Copies of the letter and circular referred to, also the correspondence of Mr. Cattell with the London Stock Exchange, are given in the appendix, and furnish a complete history of the origin and effect of the old system and the reform lately effected in quoting American securities in London.

It will be seen from the papers referred to, that Mr. Cattell discharged the duty intrusted to him with zeal and fidelity, and with a very intelligent understanding of the subject, and that the suggestions of the Treasury Department received attentive and liberal consideration on the part of the London Stock Exchange.

The change contemplated by the law in quoting sterling exchange in the United States was brought about on the 1st of January last, and without affecting injuriously or embarrassing any interest.

The reform in the quotation of United States securities on the London Stock Exchange is certainly a long step toward a correct system, but is still somewhat defective. The change made was from valuing the dollar at 54 pence to its valuation at 48 pence, that is, \$5 per pound. Estimating by the standard of the coins, (pound sterling and dollar,) the pound is \$4.86656, and our law fairly fixes the ratio at \$4.8665. Manifestly, therefore, the stock exchange basis is an overvaluation of the pound, say $13\frac{1}{2}$ cents, or about $2\frac{3}{4}$ per cent. On such a basis, a United States security sold at *true par* must be quoted at $2\frac{3}{4}$ per cent. premium, since \$4.8665 plus $2\frac{3}{4}$ per cent. (\$.133) gives \$5, the assumed par.

There appears to be no reason why London should fix a par at all, or why United States bonds may not be quoted, as our exchange now is, in dollars and cents to the pound, or in pence to the dollar, or, if a par must be established, an almost absolutely accurate one would be £15 = \$73.

THE COURSE OF SILVER BULLION.

At the time of the monetary disturbances, and consequent derangement of foreign exchanges in this country last autumn, the price of silver bullion, which had previously exhibited a declining tendency, suddenly fell from about 116½ to 112½ cents per standard ounce, gold, and the occasion was embraced to make such addition to the silver-bullion fund of the mints and assay-office in New York as was required for their

NOTE.—In projecting the law in relation to the par of exchange, value of sovereign, &c., and in the preparation of various documents explanatory of the same, I received valuable assistance from Robert Patterson, esq., of Philadelphia, for a number of years connected with the mint in that city, and which it affords me great pleasure to acknowledge.

operations, and to enable them to prepare and keep on hand a supply of silver coins sufficient to enable deposits and purchases of silver bullion to be promptly paid for, and to supply the Treasury with such sums as it might require in making its payments. When, a few months afterward, the exchanges became restored to their normal condition, the price of silver recovered to some extent, but has lately receded in the London market to $57\frac{3}{4}$ pence, against $61\frac{1}{4}$ pence, average rate in 1864. The price here is about $112\frac{1}{2}$ cents per standard ounce.

Although the decline in the value of silver, measured by gold, has been considerable, any appreciation beyond that arising from an advance in the rates of exchange on London, the principal bullion-market of the world, and which must be temporary, is not to be expected. It cannot recover its former relative value to gold while the mines of the United States and Mexico continue to yield so largely, and the large quantity existing in the form of demonetized coins in Germany remains undistributed.

The amount placed upon the market by Germany during the last year does not appear to have been large, and that sales in future will be so managed as to weaken the market as little as possible is quite certain, especially as any considerable further depreciation in value would make it impossible to carry out, without heavy loss, the German plan of the substitution of gold for silver as the standard of value and of overvalued or subsidiary silver coins in the place of the silver coins which were formerly the legal-tender money.

The relative value of the two metals will, of course, vary with the supply and demand, but the indications are that a new rate or proportion of, say, $16\frac{1}{2}$ to 1, will be practically established and continue with unimportant variations for some time to come, and this notwithstanding the fact that the proportion of $15\frac{1}{2}$ to 1 is the legal rate in the gold and silver, or double standard of the states of the Latin union, and at which provision is made for the withdrawal of the old silver coins formerly issued by the states now composing the German Empire. The relative value of $16\frac{1}{2}$ to 1 would enable us to purchase silver for coinage into half and quarter dollars and dimes at, say, $112\frac{1}{2}$ cents, gold, per ounce standard, and the coining rate under the law being $124\frac{4}{10}$ cents (or, to be exact, \$1.24416) per standard ounce, the gain or seignorage to the Treasury would be a fraction over 11.9 cents per ounce, or about $10\frac{1}{2}$ per cent. on the amount of gold employed in the purchase. This estimate excludes the cost of coinage, which, including wastage, may be stated at about 2 per cent., although 1 per cent. would probably cover all actual necessary expenses, as the mints could, when not otherwise engaged, execute the silver coinage without any increase in the working force ordinarily required and retained.

The above-stated facts show that the Government can at any time, unless there should be a material advance in the value of silver or depreciation in the gold-value of the paper dollar, (91.3 at this date,) supply itself with such an amount of subsidiary silver coin as it may require to pay out, at its nominal value, at about the same terms as a corresponding sum in paper currency could be obtained by the sale of gold coins. The bullion or export value of subsidiary silver coins, with the price of silver bullion at $112\frac{1}{2}$ cents per ounce, standard, would be $90\frac{1}{2}$ cents to the dollar. Notwithstanding these coins are only worth, *as bullion*, $90\frac{1}{2}$ cents, gold, and about par, currency, the *market-rate* for them is 95 cents gold and $104\frac{1}{2}$ cents currency to the dollar. The difference is due to the demand being in excess of the supply, and would rapidly disappear if the market were freely supplied. The demand for

the coins appears to come from the Pacific coast and Texas, where they circulate as money. The first effect of any considerable issue of subsidiary silver coin would be the disappearance in the New York market of the difference between the bullion and market value of these coins. They would next be sent to the Pacific coast and Texas in such amounts as to compel merchants and others to avail themselves of the provision of law limiting the legal tender of such coins to \$5. After a time they would begin to enter more or less into general circulation in other sections of the Union, and, as the paper money approached parity with gold, gradually expel the fractional notes. The latter, being redeemable in United States legal-tender notes, will of course become as to subsidiary silver the superior currency, whenever the legal-tender notes become exchangeable at par for gold coins. They would even become a superior currency as to silver coins before the greenback had reached a parity with gold.

I have been particular to refer to the subject of the course of silver bullion, and its issue in the form of subsidiary silver coin, for the reason that the provision of the coinage law which authorizes the payment in silver coins for silver bullion purchased for coinage by the mint at Philadelphia and assay-office, New York, expires by its own limitation on the 12th day of February next, after which subsidiary coins can be procured from the mints only in exchange for gold coins at par. The provision of law above referred to should not, in my opinion, be re-enacted or extended. The issue of subsidiary and token coins should be entirely under the control of the Government, and kept within such limits as will protect the public from the inconvenience and loss which would attend a redundant issue.

Whenever subsidiary or overvalued silver or token coins of any description are issued, two things are of vital importance, and should be observed:

First. A proper limitation as to the amount for which they are to be a legal tender.

Second. The amount of issue limited to the requirements of the public for change.

The latter is the only purpose for which such coins are designed to be used, and this can be effectually attained by their issue only in exchange at par for coin of the standard metal, (in this country, gold.)

The restriction as to the mode of issue applies particularly to times when gold, and not notes based upon debt, as now, shall form the basis of currency. Before we reach that basis, however, the Government may manufacture on its own account, and under favorable circumstances pay out, silver coins, at its pleasure and convenience, to the extent required to meet any legitimate demands for the same. In Great Britain subsidiary silver coin is manufactured exclusively on government account, and furnished to the public in exchange for gold coins at par, and in Germany and the countries of the Latin and Scandinavian money unions the manufacture is also exclusively on government account, but the issue is fixed *per capita*.

It is not within the province of this report to consider the question of the withdrawal of the fractional notes and the substitution of subsidiary silver coins in their place. The withdrawal would be the payment of a loan without interest and the substitution of money having intrinsic value. The determination of the proper time to commence the preparation in that way for a specie basis, as well as the policy and expediency of the measure, will no doubt receive due consideration by the proper authority. As to the amount of subsidiary silver coins

which would probably be required, some idea may be obtained from the experience of other countries.

The issue in Germany is to be 10 marks, equal to about \$2.38, *per capita*—population, 41,060,695; in France, 6 francs *per capita*, exclusive of the five-franc piece, which is a full-valued coin and an unlimited legal tender. Having presented the subject, as I trust, in a manner sufficiently clear, so far as it is of a technical character and connected with the course of silver bullion, I dismiss it with the remark that the mints are, or soon will be, in condition to meet in a reasonable time all the requirements of the country for coin, and which of course would be augmented when it shall be determined to withdraw the fractional currency.

MONETARY STANDARDS.

No change in monetary standards has taken place since my last annual report, although the question of changing from silver to the single gold standard has been discussed in the Netherlands. It may also be mentioned that one or more members of the Latin monetary states union appear to favor the same change, and, as a concession thereto, some restrictions have been placed on the issue of the five-franc silver coins. The Latin union has the double standard of silver and gold, valued in the coinage as $15\frac{1}{2}$ to 1, but the only silver coin issued under that valuation is the five-franc. The relative market-value of the two metals being nearly $16\frac{1}{2}$ to 1, inevitably leads to some derangement of exchanges.

In this connection it is proper to note the issue of a new gold coin by the Austro-Hungarian Empire, and stamped "eight florins—twenty francs." It is of the same value as the twenty-franc coins of the states of the Latin union. As the silver florin continues to be the coined representative of the monetary unit of the empire, the "eight florin—twenty-franc piece" must be regarded as a trade coin, even though it practically regulates exchanges and measures the depreciation of the paper florin. The issue of the new gold coin would appear to indicate the adoption at no distant day of the gold standard by that empire and an assimilation of its coinage to that of the Latin union.

Official notice was published by the Danish minister, on the 1st of September, 1874, that the terms of the common-money system of the three Scandinavian kingdoms, and which is based upon a common gold standard, will take effect in Denmark on the 1st of January, 1875, and that all financial obligations entered into on and after that date shall be done on the basis of the new-money system, and all public and private payments shall be in accordance with the unit of value of that system, viz, the gold crown of 100 oere, (\$0.268.)

The custom of assaying at our mints such foreign coins as come under notice has been continued, and the results embraced in the tables of foreign coins in the appendix. These tables embracing only what may be termed coins of commerce, a separate table is appended, giving the coins representing the monetary units, divisions, and multiples, as well as subsidiary issues of all countries as far as we have been able to obtain accurate information. All the replies to the circular in relation to the money of account and coins of foreign countries which were not received in time for my last annual report, are embraced in the appendix.

ANNUAL ASSAY AND TEST COINS.

The rigid care observed in the issue of the coinage is probably unknown to the general public, and a reference to the tests adopted to in-

sure conformity to the lawful standard of weight and fineness, and as exhibiting the responsibilities of the officers intrusted with the coinage, appears to be proper.

It will be sufficient to state that, when coins are ready for delivery, a certain number of pieces are indiscriminately taken and immediately sealed up and placed in a box or chest, denominated the "pyx," closed by two different locks, the keys of which are in the possession of the superintendent and assayer, so that neither can have access to its contents without the presence of the other. These reserved coins, after the close of the year, are submitted to a critical examination by a commission constituted by law for that purpose. The details of the examination of coins reserved during the calendar year 1873 appear in the extract from the report of the commission appended to this report.

In addition to the test above described, sample pieces, taken indiscriminately from certain deliveries in each month, are assayed under the instructions of the Director, and the result reported to him, and the officers whose work is under trial, one mint assaying upon another. This last check on the coinage, and which ascertains whether the weight and fineness conform to the legal standard, also embraces the testing of the gold coins for silver, and silver for gold, and was inaugurated under the new organization of the mints. Under this system of test assays we satisfy ourselves, from time to time, that no more silver passes off in the alloy of gold coins than is allowed by law, and gold contained in silver bullion, and silver in gold bullion, is separated as closely as can be done at a profit.

In order to make this subject clear to those not familiar with mint-terms, it may be stated that nearly all gold bullion as it comes from the mines contains more or less silver, which has to be separated before the gold bullion can be alloyed with copper to bring it to the legal standard for coinage. As the silver cannot, however, all be parted at a profit from the gold, the law permits it to constitute one-tenth of the alloy of gold coins, but without valuation. In the case of silver bullion containing gold, the regulations require it to be separated from the silver to the extent to which it can be done with advantage to the depositor or the Government; that is to say, the gold is separated from the silver in all cases where its value equals or exceeds the expense of the operation. The test made, as described, shows that the gold coins contain only a small portion of the silver allowed by law to remain as alloy, and that where gold is present in the silver coins it amounts to only a trace.

It should also be added, that in assaying fine gold before adding the alloy (copper) and gold ingots for coinage at the different mints, and in the test assays of coins by the assay commission, the gold is reported to the one-ten-thousandth part, while in the case of crude bullion fractions between the whole and half thousandths are disregarded.

The reason for the distinction in reporting fine and crude bullion is, that the one is free from all base metals, while the other may, and often does, contain base metals and foreign substances, and which render it proper to disregard the minute fractions as stated.

In making assays of gold only a small quantity, but such as will represent the whole mass to be tried, is taken for the purpose. The normal weight now generally adopted for a gold assay is the demigram; not quite eight grains troy. This stands for one thousand, and there is a series of lesser weights down to one-thousandth or degree, and which is again divided into tenths. In the French mint gold is reported to the one-ten-thousandth degree; also at the mint at San Francisco, as re-

spects deposits of fine gold. Some discretion is usually exercised by assayers in this and other countries as to the reporting or disregarding of the last division or smallest weight. The assay-beam used in weighing is so constructed as to be of the utmost precision and delicacy, and so fine is the adjustment, that it is sensible to less than the twentieth of a milligram, or the one-tenth of a thousandth of the unit or normal weight of the assay.

SPECTROSCOPIC ASSAY.

As the question of assaying by the aid of the spectroscope has lately engaged the attention of the assay department in the Mint at Philadelphia and assay-office New York, as also of the royal mint in London, and elsewhere, it gives me pleasure to place in the appendix interesting statements on the subject, prepared at my request by William E. Du Bois, esq., assayer of the Philadelphia Mint, and Herbert G. Torrey, esq., assayer of the New York assay-office, and obligingly transmitted by the superintendents of those institutions.

It may also be interesting to state that a number of assays, made at the Philadelphia Mint of the fine gold used for proofs in the London mint, lately sent for that purpose with a courtesey and confidence which it is very pleasant to acknowledge, have proven the exact correspondence of their proof-gold with ours. The same thing is occasionally done among our own mints, and with a like result.

It is gratifying to find in the ample and able reports of the London mint that they do not confine themselves to details of their own work, but look abroad and collect whatever is important of the doings of other mints or of the coinage-enactments of other countries. The same course is pursued here.

The precious metals being universal standards of value, changes of coinages and in monetary systems must be regarded as of interest to all commercial countries.

AMOUNT OF SPECIE IN THE COUNTRY.

According to the official reports of the Treasurer of the United States and Comptroller of the Currency, there were held by the Treasury and national banks at the close of the fiscal year ended June 30, 1872—

In coin	\$98, 389, 864 49
Estimated amount of coin in Pacific coast States and Territories at that time	20, 000, 000 00
And in the hands of bankers and people elsewhere.....	10, 000, 000 00
 Total specie fiscal year 1872-'73	 128, 389, 864 49
Add to this two years' product of United States mines, at \$70,000,000..	140, 000, 000 00
Imports of coin and bullion for two years	49, 695, 343 00
 Deduct amount exported during the two years ended June 30, 1874..	 318, 035, 207 49
 Total estimated stock, June 30, 1874.....	 151, 235, 979 00
 Total estimated stock, June 30, 1874.....	 166, 846, 228 49

The above estimate shows a gain in specie and bullion in the last two fiscal years of \$38,456,364, and the stock of specie to be about \$166,846,228.

*The estimate of the amount of coin and bullion in the States and Territories of the Pacific coast June 30, 1872, was prepared at my request by Mr. Louis A. Garnett, of San Francisco, one of the most intelligent and reliable authorities of the present day on the subject of the precious metals. His estimate was \$20,000,000 to \$25,000,000. I have taken the minimum amount.

The coinage of the mints from the 30th of June to 30th of September, 1874, amounted to \$13,192,332, mostly from bullion of domestic production.

It is impossible to estimate, even approximately, the amount of specie finding its way out of or into the country by private hands, and not embraced in the custom-house returns. It would be safe, I think, to offset one against the other.

The amount carried out of the country by persons visiting Europe is, there are reasons to believe, generally estimated too high, especially since the system of letters of credit has become so widely extended, and which, with bills of exchange, have rendered the carrying of coin from one country to another entirely unnecessary, particularly as respects the several countries which are associated in modern civilization.

On the other hand, the amount of coin brought into the United States by emigrants is probably underrated. That class of people are always disposed to carry a portion of their effects in the form of gold and silver coin, with the value of which they are familiar, and with the knowledge that the same will be freely received everywhere in exchange for any article they may require.

AMOUNT OF GOLD AND SILVER COIN AND BULLION IN THE WORLD.

Inquiries are frequently made as to the amount of gold and silver existing in the world in the form of coin and bullion, and as to the increase since the discovery of the mines of California and Australia. Anything like an accurate estimate upon the subject is utterly impossible, for although the annual production for several decades and the total coinages of different countries may be approximately stated, the fact that the amount of recoinages, and of precious metals used in the arts during even the last twenty-five years, cannot be reliably ascertained, would render the estimate of no practical value. Such information as we have been able to obtain upon the subject will be found in the appendix, and which includes a communication and statements from R. W. Raymond, Commissioner of Mining Statistics. When all the replies to our circular of last year shall have been received the amount of the present production can be arrived at with reasonable accuracy. The opinion has often been advanced that the large amount of gold yielded by the mines of the United States and Australia has produced an engorgement in the markets of the world. That such was the effect during the first five years after these mines were opened and during which period the maximum production was reached, and that a general advance in prices followed, may be safely admitted; but the undeniable fact that leading countries, like the United States, Russia, Austria, France, and Italy, are compelled to use inconvertible paper-money, not from choice, but because they have not sufficient coin for a specie basis, would appear to show conclusively that there is not too much gold, and especially as no one country appears to possess a redundancy. This fact, and particularly when it is considered that the annual production of gold is gradually decreasing, should dispel any fears which may be entertained of its future decline in value relatively to land, labor, and commodities.

The world's stock of precious metals is generally estimated at from ten to twelve thousand millions of dollars, nearly equally divided as to the two metals. The estimate appears to be based on the assumption that the stock at the commencement of the fifteenth century amounted to two thousand millions, and that from eight to ten thousand millions have

since been added, principally from the mines of North and South America and Australia.

The present production of gold being estimated at one hundred millions and silver eighty millions, would give an annual addition to the accumulated stock of $1\frac{1}{2}$ per cent. The estimates of the earlier writers must be taken with a good many grains of allowance; and generally in connection with this subject, and its practical bearing upon the affairs of the present period, it may be proper to observe that there have been so many important changes in monetary systems and in the financial and industrial condition of different countries, as well as redistributions of specie, during the last half century, as to render the statements and conclusions on various points connected therewith contained in the old standard works comparatively useless.

The period referred to has been one of unparalleled activity and progress, and the utilization of steam and electricity in the intercourse of nations, and the great extension of international credits, have effected a complete revolution in the commerce of the world. These important changes have not, however, enabled the world to dispense with the precious metals as the common measure of value and medium of exchange. On the contrary, those metals remain in that respect, the same as they were at the commencement of authentic history, the only money of universal recognition and unlimited acceptance.

In this connection it affords me pleasure to acknowledge the courtesy of Baron Bussirré, director of the mint at Paris, who furnished this Office with valuable information in relation to the amount of coin in France.

In concluding this report, I desire to express my acknowledgments to the officers, clerks, and employés of the several mints and assay-offices, and to the clerks of the Bureau, for the faithful performance of their duties, and to which the satisfactory results of the largely-increased business of the Mint Establishment may be mainly attributed.

I have the honor to be, very respectfully,

H. R. LINDERMAN,
Director of the Mint.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

APPENDIX

No. 1.

STATEMENTS EXHIBITING IN DETAIL THE OPERATIONS OF THE MINTS AND ASSAY-OFFICES DURING THE FISCAL YEAR, AND IMPORTS AND EXPORTS OF GOLD AND SILVER FOR THE FISCAL YEARS ENDED JUNE 30, 1872, AND JUNE 30, 1873.

A 1.—*Deposits and purchases of bullion at the mints and assay-offices during the fiscal year ended June 30, 1874.*

Description.	Mints.				Assay-offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Boise.	
GOLD.								
Bars, (redeposits).....	\$18,718,058 10	\$21,837,707 06	\$2,213,041 96	\$962,803 82	\$1,001,025 81	\$8,242 35	\$112,466 54	\$19,719,083 91
United States bullion.....	220,711 02				4,350,315 07			20,736,357 82
United States coin.....	5,710,117 89				565,249 40			6,275,367 29
Jewelers' bars.....	210,515 13				443,361 92	476 51		654,353 56
Foreign coin.....	15,214 07	187,105 45			9,111,562 95			9,313,882 47
Foreign bullion.....	11,836 38	40,269 15			3,110,411 39			3,162,519 92
Total gold.....	24,886,452 59	22,066,181 66	2,213,041 96	962,803 82	18,611,959 54	8,688 86	112,466 54	68,861,594 97
SILVER.								
Bars, (redeposits).....	2,614,994 97				1,022,478 56			3,637,473 53
United States bullion.....	315,008 18	\$2,848,440 55	2,875,116 82	26,969 27	4,755,195 15	46 67	1,791 52	10,822,658 16
United States coin.....	52,984 87				5,570 62			58,552 49
Jewelers' bars.....	67,848 60				208,210 31	10 98		276,069 92
Foreign coin.....	9,811 01	10,840 99			131,045 50	17 04		211,714 54
Foreign bullion.....	95 03	9,326 23			106,261 41			115,682 67
Total silver.....	3,060,829 66	2,868,607 77	2,875,116 82	26,969 27	6,288,761 58	74 69	1,791 52	15,122,151 31
Total gold and silver.....	27,947,282 25	24,934,789 43	5,088,158 78	989,773 09	24,900,721 12	8,763 55	114,258 06	83,983,746 28
LESS REDEPOSITS.								
Gold.....	18,718,058 10				1,001,025 81			19,719,083 91
Silver.....	2,614,994 97				1,022,478 56			3,637,473 53
Total redeposits.....								23,356,557 44
Total deposits.....								60,627,188 84

* Includes refined gold and silver from San Francisco assaying and refining works.

B 1.—Gold and silver of domestic production deposited at the mints and assay-offices during the fiscal year ended June 30, 1874

Locality.	Mints.				Assay-offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Boise.	
GOLD.								
Alabama.....	\$259 33			\$389 64				\$259 33
Arizona.....		\$78,074 20						78,463 84
California.....	1,870 30	8,256,158 88			\$122,543 79			8,380,572 97
Colorado.....	5,102 07			915,195 16	245,992 16			1,166,289 39
Georgia.....	14,903 94				16,658 32			30,962 16
Idaho.....	17,498 10	123,208 73			791,243 28		\$95,668 58	1,027,708 69
Maryland.....	143 59							143 59
Montana.....	25,500 05	47,092 80		942 40	2,584,555 20			2,638,120 45
Nebraska.....					355 76			355 76
New Mexico.....	24,277 02			46,184 32	23,133 11			93,584 45
Nevada.....	349 56	13,920 48	\$2,213,041 96		184,371 69			2,411,083 69
New Hampshire.....	1,980 13							1,980 13
North Carolina.....	83,189 81				16,425 98	\$7,454 31		107,070 10
Oregon.....	1,622 51	342,943 82			2,417 21		16,797 96	363,781 50
South Carolina.....	247 64				121 02	525 01		896 70
Tennessee.....					154 87			154 87
Utah.....	337 33	229 48			16,927 03			17,493 84
Virginia.....	2,163 88							2,163 88
Washington Territory.....		2,944 78						2,944 78
Wyoming.....	5,848 37			92 30	4,270 42			10,211 09
Refined gold.....		12,782,200 91						12,782,200 91
Parted from silver.....	17,758 74				371,755 33			389,514 07
Contained in silver.....		191,942 98						191,942 98
Other sources.....	17,658 65					230 00		17,888 65
Total gold.....	220,711 02	21,838,807 06	2,213,041 96	962,803 82	4,380,345 07	8,212 35	112,466 54	29,736,387 82
SILVER.								
California.....					44,345 89			44,345 89
Colorado.....				26,969 27	1,319,915 44			1,391,856 32
Idaho.....	44,971 61				3,963 40		1,791 52	17,323 49
Montana.....		11,568 57			16,898 10			16,898 10
Nebraska.....					50,455 37			50,455 37
Nevada.....	18 12	282,392 77	2,875,116 82		1,073,237 65			4,230,765 36
New Mexico.....	5,091 83				72,788 87			77,880 70
North Carolina.....						46 67		46 67
Utah.....	831 73	20,980 00			1,743,126 13			1,764,937 86
Lake Superior.....	741 96				353,024 23			353,766 19

Refined silver.....	2,468,928 66	2,468,928 66	2,468,928 66	2,468,928 66
Contained in gold.....	64,570 55	64,570 55	64,570 55	64,570 55
Payable from gold.....	10,249 61	10,249 61	10,249 61	10,249 61
Other sources.....	253,193 32	253,193 32	253,193 32	253,193 32
Total silver.....	315,098 18	2,848,440 55	2,875,116 82	26,969 27
Total gold and silver.....	535,809 20	24,687,247 61	5,088,158 78	989,773 09
			9,135,540 22	8,259 02
			1,791 52	114,258 06
				40,559,045 98

C 1.—Coinage, mints of the United States, during the fiscal year ended June 30, 1874.

Denomination.	Mint United States, Philadelphia.		Mint United States, San Francisco.		Mint United States, Carson.		Total.	
	Pieces.	Value.	Pieces.	Value.	Pieces.	Value.	Pieces.	Value.
GOLD.								
Double-eagles	1, 242, 960	\$24, 845, 200	1, 008, 000	\$21, 960, 000	73, 935	\$4, 478, 700 00	2, 414, 195	\$48, 283, 900 00
Eagles	15, 120	151, 200	12, 000	120, 000	11, 228	112, 280 00	38, 348	383, 480 00
Half-eagles	114, 580	572, 900	34, 000	155, 000	16, 376	81, 880 00	161, 956	809, 780 00
Three-dollars	41, 820	125, 460	—	—	—	—	41, 820	125, 460 00
Quarter-eagles	179, 460	444, 650	27, 000	67, 500	—	—	206, 460	516, 150 00
Dollars	323, 920	323, 920	—	—	—	—	323, 920	323, 920 00
Total gold	1, 917, 160	26, 467, 330	1, 168, 000	22, 302, 500	104, 539	1, 672, 860 00	3, 186, 699	50, 442, 690 00
SILVER.								
Trade-dollars	1, 058, 200	1, 058, 200	2, 121, 000	2, 121, 000	409, 700	409, 700 00	3, 588, 900	3, 588, 900 00
Half-dollars	2, 284, 300	1, 142, 150	482, 000	241, 000	111, 560	55, 780 00	2, 877, 860	1, 438, 930 00
Quarter-dollars	1, 309, 100	327, 275	516, 000	129, 000	8, 962	2, 240 50	1, 834, 062	458, 515 50
Dimes	4, 355, 100	435, 510	595, 000	59, 500	92, 458	2, 245 80	4, 972, 558	497, 255 80
Total silver	9, 006, 700	2, 963, 135	3, 714, 000	2, 550, 500	552, 680	460, 966 30	13, 273, 380	5, 983, 601 30
MINOR.								
Five-cent	4, 887, 000	244, 350	—	—	—	—	4, 887, 000	244, 350 00
Three-cent	988, 000	29, 640	—	—	—	—	988, 000	29, 640 00
Cent	13, 793, 500	137, 935	—	—	—	—	13, 793, 500	137, 935 00
Total minor	19, 668, 500	411, 925	—	—	—	—	19, 668, 500	411, 925 00
Total coinage	30, 592, 360	29, 842, 390	4, 882, 000	24, 853, 000	654, 219	2, 142, 826 30	36, 128, 579	56, 838, 216 30

D 1.—Statement of bars manufactured at the mints and assay-offices during the fiscal year ended June 30, 1874.

Description.	Mints.				Assay-offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Poiso.	
GOLD.								
Fine bars.....	\$95,316 21	9,025,309 58	475,436 61	962,803 82	\$4,942,180 99	8,688 86	112,466 54	\$5,037,503 20
Unparted bars.....	.....	.....	.....	.....	.....	.....	.....	10,584,705 41
Bars from standard British coin, 916½ M.....	.....	.....	.....	.....	5,922,836 23	.....	.....	5,922,836 23
Bars from light United States gold coin.....	.....	.....	.....	.....	9,940,773 16	.....	.....	9,940,773 16
Total gold.....	95,316 21	9,025,309 58	475,436 61	962,803 82	20,805,796 38	8,688 86	112,466 54	31,485,818 00
SILVER.								
Fine bars.....	319,821 49	.....	1,672,198 06	.....	3,945,471 13	.....	.....	5,937,490 68
Unparted bars.....	.....	209,071 53	672,401 49	26,969 27	.....	74 69	1,791 52	910,308 50
Total silver.....	319,821 49	209,071 53	2,344,599 55	26,969 27	3,945,471 13	74 69	1,791 52	6,847,799 18
Total gold and silver.....	415,137 70	9,234,381 11	2,820,636 16	989,773 09	24,751,267 51	8,763 55	114,258 06	38,333,617 18

E.—Minor coins redeemed, re-issued, and exchanged during the fiscal year ended June 30, 1874.

REDEEMED.

Denomination.	Pieces.	Value.
Copper one-cent pieces.....	580,950	\$5,809 50
Nickel one-cent pieces.....	2,502,335	25,023 35
Bronze one-cent pieces.....	2,679,421	26,794 21
Bronze two-cent pieces.....	1,330,059	26,601 18
Nickel three-cent pieces.....	630,226	18,906 78
Nickel five-cent pieces.....	3,167,471	158,373 55
Total.....	10,890,462	261,508 57

RE-ISSUED.

Denomination.	Pieces.	Value.
Bronze one-cent pieces.....	1,987,500	\$19,875
Nickel three-cent pieces.....	544,000	16,320
Nickel five-cent pieces.....	2,592,600	129,630
Total.....	5,124,100	165,825

EXCHANGED.

(One denomination of minor coins for another.)

Denomination.	Pieces.	Value.
Copper one-cent pieces.....	25,385	\$253 85
Nickel one-cent pieces.....	1,212	12 12
Bronze one-cent pieces.....	3,876	38 76
Bronze two-cent pieces.....	3,479	69 58
Nickel three-cent pieces.....	6,439	193 17
Nickel five-cent pieces.....	2,562	128 10
Total.....	42,953	695 58

DELIVERED TO MELTER AND REFINER FOR MELTING.

Denomination.	Pieces.	Value.
Nickel one-cent pieces.....	5,254,000	\$52,540
Bronze one-cent pieces.....	46,000	460
Bronze two-cent pieces.....	1,800,000	36,000
Total.....	7,100,000	89,000

2.—Gold and silver of domestic production deposited at the mints and assay-offices from their organization to the close of the fiscal year ended June 30, 1874.

Locality.	Gold.	Silver.	Total.
Alabama	\$212,087 12	.....	\$212,087 12
Arizona	1,117,537 92	\$41,049 94	1,158,587 86
Alaska	397 64	.....	397 64
California	648,411,230 56	264,400 52	648,675,631 08
Colorado	21,741,203 66	2,939,946 83	24,681,150 49
Dakota	5,760 00	.....	5,760 00
Georgia	7,298,746 92	403 83	7,299,150 75
Idaho	19,417,494 53	317,725 23	19,735,219 76
Kansas	955,867 44	468 00	956,335 44
Lake Superior .....	.....	1,875,933 19	1,875,933 19
Maryland	402 12	.....	402 12
Montana	36,640,618 66	304,361 51	36,944,980 17
Nebraska	27,382 72	741,912 35	769,295 07
New Mexico	1,004,755 72	239,574 49	1,244,330 21
Nevada	3,551,751 63	13,492,414 79	17,044,166 42
New Hampshire	2,301 02	.....	2,301 02
North Carolina	10,090,655 98	44,628 63	10,135,284 61
Oregon	12,314,071 10	1,890 10	12,315,961 20
South Carolina	1,379,077 47	.....	1,379,077 47
Tennessee	79,173 56	.....	79,173 56
Utah	216,321 75	2,974,141 26	3,190,463 01
Vermont	8,904 97	.....	8,904 97
Virginia	1,633,776 66	.....	1,633,776 66
Washington Territory	74,607 19	.....	74,607 19
Wyoming	163,857 22	6,756 75	170,613 97
Refined gold	89,068,113 21	.....	89,068,113 21
Parted from silver	5,653,738 85	.....	5,653,738 85
Contained in silver	303,679 56	.....	303,679 56
Refined silver .....	.....	13,643,803 51	13,643,803 51
Parted from gold .....	.....	5,954,446 02	5,954,446 02
Contained in gold .....	.....	233,148 76	233,148 76
Other sources	9,892,001 87	304,413 69	10,196,415 56
Total	871,265,517 05	43,381,419 40	914,646,936 45

C 2.—Summary exhibit of the coinage of the mints to the close of the fiscal year ended June 30, 1874.

Mints.	Period.	GOLD.						SILVER.					
		Double-eagles.	Eagles.	Half-eagles.	Three-dollars.	Quarter-eagles.	Dollars.	Dollars.	Half-dollars.	Dimes.	Half-dimes.	Three-cents.	
Philadelphia.....	1793	\$234,500,640	\$25,451,480	\$51,957,025	\$1,033,713	\$21,510,750	\$18,063,658	\$8,081,050	\$9,634,577	\$49,240,723	\$7,657,061	\$3,977,346	\$1,200,250
New Orleans, to January 31, 1861.	1838	16,329,000	15,976,920	3,764,625	72,000	3,002,195	1,004,000	974,000	23,770,050	2,661,550	1,526,633	810,500	21,000
Charlotte, to March 31, 1861.	1838	.....	.....	4,389,915	.....	549,592	109,134	.....	.....	.....	.....	.....	.....
Dahomega, to February 28, 1861.	1838	.....	.....	5,545,415	3,360	494,625	72,529	.....	.....	.....	.....	.....	.....
San Francisco.....	1854	341,635,020	4,160,560	3,103,540	186,300	1,177,505	90,232	2,150,700	7,446,225	512,825	336,575	119,400	.....
Carson.....	1870	2,547,220	308,610	309,005	.....	.....	.....	428,988	408,313	14,635	9,758	.....	.....
Total.....	.....	695,011,880	55,897,570	69,069,525	1,295,373	26,734,667	19,339,553	11,634,738	101,284,165	22,459,734	9,558,051	4,906,946	1,221,850

Mints.	Period.	MINOR COINAGE.				Total gold.	Total silver.	Total minor.	Total value.
		Five-cents.	Three-cents.	Two-cents.	Half-cents.				
Philadelphia.....	1793	\$5,520,490	\$84,990	\$912,020	\$39,926	\$462,517,266	\$109,904,012	\$12,391,813	\$584,813,091
New Orleans, to January 31, 1861.	1838	.....	.....	.....	.....	40,148,740	29,704,353	.....	69,913,093
Charlotte, to March 31, 1861.	1838	.....	.....	.....	.....	5,048,641	.....	.....	5,048,641
Dahomega, to February 28, 1861.	1838	.....	.....	.....	.....	6,115,929	.....	.....	6,115,929
San Francisco.....	1854	.....	.....	.....	.....	350,353,157	10,595,425	.....	360,948,582
Carson.....	1870	.....	.....	.....	.....	3,164,835	861,695	.....	4,026,530
Total.....	.....	5,520,490	894,990	912,020	39,926	867,348,568	151,125,485	12,391,813	1,030,865,807

D 2.—Summary exhibit of bars manufactured to the close of the fiscal year ended June 30, 1874.

Mints and assay-offices.	Period.	Gold bars.				Silver bars.		Total gold.	Total silver.	Value of gold and silver.
		Fine.	Unparted.	From standard British coin, 916½ M.	From light United States coin, 900 M.	Fine.	Unparted.			
Philadelphia.....	1793	\$35,475,575 54	.....	.....	.....	\$1,052,298 77	.....	\$35,475,575 54	\$1,052,298 77	\$36,527,874 31
San Francisco.....	1854	236,653 89	\$43,286,337 56	.....	.....	1,436,307 17	\$615,861 85	43,522,991 45	2,052,169 02	45,575,160 47
Carson.....	1870	119,143 87	9,453,261 56	.....	.....	1,672,198 06	9,905,046 31	9,572,405 43	11,577,244 37	21,149,649 80
Denver.....	1864	.....	7,414,016 90	.....	.....	.....	46,848, 70	7,414,016 90	46,848 70	7,460,865 60
New York.....	1854	204,672,785 80	.....	\$5,922,836 23	\$9,640,773 16	14,984,141 90	.....	220,536,395 19	14,984,141 90	235,517,537 09
Charlotte.....	1838	.....	69,331 00	.....	.....	.....	916 81	69,331 00	4,214 85	70,247 81
Boise.....	1872	.....	253,765 62	.....	.....	.....	4,214 85	253,765 62	377,237 13	257,980 47
New Orleans, to 1861.....	1839	.....	.....	.....	.....	377,237 13	.....	.....	.....	377,237 13
Total.....	.....	240,504,159 10	60,476,712 64	5,922,836 23	9,940,773 16	19,519,183 03	10,572,888 52	316,844,481 13	30,092,071 55	346,936,552 68

Statement showing the amount of subsidiary silver coin issued in payment of silver contained in gold deposits, and exchanged for gold coins at par, at the mints in San Francisco and Carson City, from April 1, 1873, to June 30, 1874.

Mints.	Issued in pay- ment of silver contained in gold.	Exchanged for gold coins at par.	Total.
San Francisco.....	\$75,687 77	\$66,716 53	\$142,404 30
Carson City.....	5,999 63	94,318 04	100,317 67
Total.....	\$1,687 40	161,034 57	242,721 97

Statement of trade-dollar and subsidiary silver coinage, under the coinage act of 1873, to the close of the fiscal year ended June 30, 1874.

Mints.	Period.	Trade- dollars.	Half- dollars.	Quarter- dollars.	Dimes.	Total.
Philadelphia, San Francisco, and Carson.	From April 1 to June 30, 1873.	.....	\$467,000	\$91,875 00	\$107,115 00	\$665,990 00
Do	Fiscal year end- ed June 30, 1874.	\$3,558,900	1,438,930	452,515 50	497,255 80	5,983,601 30
Total .....	.....	3,558,900	1,905,930	550,390 50	604,370 80	6,649,591 30

Statement of the silver coinage at the mints of the United States to March 31, 1873, under the act of February 21, 1853.

Period.	United States mint, Phila- delphia.	United States mint, San Francisco.	Mint New Or- leans.	United States mint, Car- son City.	Total.
1853.....	\$7,806,461 00	.....	\$1,125,000 00	.....	\$9,031,461 00
1854.....	5,340,130 00	.....	3,240,000 00	.....	8,586,130 00
1855.....	1,393,170 00	\$164,075 00	1,918,000 00	.....	3,475,245 00
1856.....	3,150,740 00	177,000 00	1,744,000 00	.....	5,071,740 00
1857.....	1,333,000 00	50,000 00	.....	.....	1,383,000 00
1858.....	4,970,980 00	127,750 00	2,942,000 00	.....	8,040,730 00
1859.....	2,926,400 00	283,500 00	2,689,000 00	.....	5,898,900 00
1860.....	519,890 00	356,500 00	1,293,000 00	.....	2,169,390 00
1861.....	1,433,800 00	198,000 00	414,000 00	.....	2,045,800 00
1862.....	2,168,951 50	641,700 00	.....	.....	2,810,651 50
1863.....	326,817 80	815,875 00	.....	.....	1,142,692 80
1864.....	177,544 10	347,500 00	.....	.....	525,044 10
1865.....	274,608 00	328,800 00	.....	.....	603,408 00
1866.....	340,764 50	280,950 00	.....	.....	621,714 50
1867.....	295,871 00	634,000 00	.....	.....	929,871 00
1868.....	259,950 00	822,000 00	.....	.....	1,081,950 00
1869.....	203,396 50	406,000 00	.....	.....	609,396 50
1870.....	576,810 50	594,500 00	.....	\$7,635 00	1,178,945 50
1871.....	498,630 25	746,775 00	.....	52,571 00	1,297,976 25
1872.....	869,892 55	955,500 00	.....	91,480 50	1,916,873 05
1873.....	1,085,690 50	50,000 00	.....	166,165 00	1,301,855 50
Total.....	35,953,498 20	1,930,425 00	15,471,000 00	317,851 50	59,722,774 70

Statement of medals, proof-coins, and pattern-pieces manufactured at the United States mint, Philadelphia, during the fiscal year ended June 30, 1874.

Description of manufacture.	Number.	Selling value.	Profits.
Medals:			
Gold	215	\$2,645 60	.....
Silver	2,629	2,566 07	.....
Bronze	1,237	1,591 15	.....
Proof-sets:			
Gold	34	1,462 00	.....
Silver	905	1,605 60	.....
Base	600	75 00	.....
Silver pattern-pieces	42	630 00	.....
Total.....	5,662	10,575 42	\$4,018 80

Imports and exports of gold and silver during the fiscal year ended June 30, 1873, made up from monthly reports of Bureau of Statistics.

IMPORTS.

Date.	Bullion.		Coin.		Total bullion.	Total coin.	Total bullion and coin.
	Gold.	Silver.	Gold.	Silver.			
1872.							
July.....	\$193,565	\$3,366	\$362,309	\$2,676,437	\$196,931	\$3,038,746	\$3,235,677
August.....	157,577	44,512	2,193,689	283,801	202,089	2,477,490	2,679,579
September.....	172,223	46,282	169,482	2,429,047	218,505	2,598,529	2,817,034
October.....	413,963	12,313	796,661	498,808	426,276	1,295,469	1,721,745
November.....	115,819	11,107	989,760	432,250	126,926	1,422,010	1,548,936
December.....	230,617	42,337	165,612	1,118,639	272,954	1,284,271	1,557,225
1873.							
January.....	23,122	42,390	146,582	609,158	70,512	755,740	826,252
February.....	22,534	39,398	460,060	463,051	61,932	923,111	985,043
March.....	22,834	76,464	652,619	1,015,332	99,298	1,667,971	1,767,269
April.....	35,196	68,788	659,356	446,608	103,984	1,105,964	1,209,948
May.....	61,348	66,258	423,397	537,643	127,606	961,040	1,088,646
June.....	88,795	18,500	184,027	1,511,761	107,295	1,695,788	1,803,083
Total.....	1,542,593	471,715	7,203,554	12,022,575	2,014,308	19,226,129	21,240,437

EXPORTS.

(Gold and silver produced in the United States.)

Date.	Bullion.		Coin.		Total bullion.	Total coin.	Total bullion and coin.
	Gold.	Silver.	Gold.	Silver.			
1872.							
July.....	\$2,042,324	\$2,207,076	\$14,354,156	\$71,350	\$4,249,400	\$14,425,536	\$18,674,936
August.....	4,153,769	2,205,221	2,627,973	182,954	6,360,990	2,810,932	9,171,922
September.....	303,366	1,239,945	834,572	79,024	1,543,311	913,596	2,456,907
October.....	227,126	1,458,114	2,189,010	107,790	1,685,240	2,296,800	3,982,040
November.....	430,717	1,885,944	3,520,558	49,555	2,316,661	3,570,113	5,886,774
December.....	329,795	1,635,867	2,556,903	123,940	1,965,662	2,710,843	4,676,505
1873.							
January.....	355,409	2,233,477	4,980,407	296,684	2,588,886	5,277,091	7,865,977
February.....	199,904	2,195,283	1,319,352	79,094	2,395,187	1,398,446	3,793,633
March.....	65,277	2,934,994	706,222	365,344	3,000,271	1,071,566	4,071,837
April.....	262,432	3,134,553	507,094	207,432	3,396,985	714,526	4,111,511
May.....	48,788	2,531,476	270,357	59,145	2,580,264	329,502	2,909,766
June.....	389,268	4,097,116	1,765,254	52,100	4,436,384	1,817,354	6,303,738
Total.....	8,810,175	27,759,066	35,661,863	1,674,442	36,569,241	37,336,305	73,905,546

RE-EXPORTS.

(Foreign gold and silver exported from the United States.)

Date.	Bullion.		Coin.		Total bullion.	Total coin.	Total bullion and coin.
	Gold.	Silver.	Gold.	Silver.			
1872.							
July.....			\$39,000	\$2,095,628		\$2,134,628	\$2,134,628
August.....			36,559	577,300		613,859	613,859
September.....		\$6,284	13,700	276,534	\$6,284	290,234	296,518
October.....			51,568	2,222,289		2,273,857	2,273,857
November.....		11,000		259,423	11,000	259,423	270,423
December.....			11,056	436,950		448,006	448,006
1873.							
January.....			11,297	605,496		616,793	616,793
February.....			24,008	763,927		787,935	787,935
March.....		22,123	20,129	332,253	22,123	352,382	374,505
April.....			63,502	807,358		870,860	870,860
May.....			36,191	619,925		656,116	656,116
June.....		46,388	77,667	1,235,473	46,388	1,313,140	1,359,528
Total.....		85,795	384,677	10,232,556	85,795	10,617,233	10,703,028

Imports and exports of gold and silver during the fiscal year ended June 30, 1874, made up from monthly reports of Bureau of Statistics.

IMPORTS.

Date.	Bullion.		Coin.		Total bullion.	Total coin.	Total bullion and coin.
	Gold.	Silver.	Gold.	Silver.			
1873.							
July.....	\$64,153	\$32,700	\$407,313	\$708,338	\$96,853	\$1,115,651	\$1,212,504
August.....	106,977	42,952	213,754	536,054	149,929	749,808	899,737
September.....	157,964	35,653	1,554,039	437,360	193,617	2,021,399	2,215,016
October.....	112,462	95	9,909,391	810,345	112,557	10,719,736	10,832,293
November.....	116,706	141,300	3,519,168	671,373	258,006	4,190,541	4,448,547
December.....	622,862	43,850	936,795	617,094	666,712	1,553,889	2,220,601
1874.							
January.....	67,976	78,509	105,643	375,672	146,476	481,315	627,791
February.....	61,442	113,269	156,787	1,074,455	174,711	1,231,242	1,405,953
March.....	57,236	50,779	51,344	417,750	108,615	469,094	577,109
April.....	116,610	288,817	290,461	399,258	405,427	689,719	1,095,146
May.....	70,207	3,326	576,061	1,277,029	73,533	1,853,090	1,926,623
June.....	66,516		137,712	789,358	66,516	927,070	993,586
Total.....	1,621,111	831,241	17,888,468	8,114,086	2,452,352	26,002,554	28,454,906

EXPORTS.

(Gold and silver produced in the United States.)

Date.	Bullion.		Coin.		Total bullion.	Total coin.	Total bullion and coin.
	Gold.	Silver.	Gold.	Silver.			
1873.							
July.....	\$390,142	\$2,727,263	\$7,242,747	\$214,262	\$3,117,405	\$7,457,009	\$10,574,414
August.....	635,353	2,087,511	644,725	290,353	2,772,864	925,078	3,697,942
September.....	41,753	1,069,322	1,832,811	90,800	1,111,075	1,923,611	3,034,686
October.....	41,841	1,561,143	1,105,777	364,367	1,605,984	1,470,144	3,076,128
November.....	57,876	2,431,463	1,543,620	135,708	2,489,339	1,679,328	4,168,667
December.....	11,318	2,218,392	281,616	143,871	2,229,710	425,487	2,655,197
1874.							
January.....	9,992	2,268,998	703,704	195,228	2,278,990	898,932	3,177,922
February.....	8,937	1,722,713	615,422	329,233	1,731,650	944,655	2,676,305
March.....	18,750	1,241,504	1,246,767	253,665	1,260,254	1,500,432	2,760,686
April.....	52,830	2,288,557	498,594	513,748	2,341,387	1,012,342	3,353,729
May.....	1,651,142	1,886,200	7,410,730	1,393,418	3,537,342	8,804,148	12,341,490
June.....	905,699	5,650,430	995,716	630,765	6,556,039	1,626,481	8,182,520
Total.....	3,878,543	27,153,496	24,112,229	4,555,418	31,032,039	28,667,647	59,699,686

RE-EXPORTS.

(Foreign gold and silver exported from the United States.)

Date.	Bullion.		Coin.		Total bullion.	Total coin.	Total bullion and coin.
	Gold.	Silver.	Gold.	Silver.			
1873.							
July.....			\$270, 944	\$341, 443		\$612, 387	\$612, 387
August.....			89, 713	240, 332		330, 045	330, 045
September.....		\$25, 000	128, 956	167, 317	\$25, 000	296, 273	321, 273
October.....			10, 059	780, 806		790, 865	790, 865
November.....			845	263, 046		263, 891	263, 891
December.....			20, 464	304, 167		324, 631	324, 631
1874.							
January.....			126, 255	391, 258		517, 513	517, 513
February.....			167, 220	1, 160, 669		1, 327, 889	1, 327, 889
March.....			56, 045	215, 405		271, 450	271, 450
April.....			68, 352	180, 595		248, 947	248, 947
May.....			385, 925	1, 127, 005		1, 512, 930	1, 512, 930
June.....			72, 156	336, 742		408, 898	408, 898
Total.....		25, 000	1, 396, 934	5, 508, 785	25, 000	6, 905, 719	6, 930, 719

No. 2.

RESULTS OF ANNUAL AND TEST ASSAYS.—GOLD AND SILVER COINAGE AND TOLERANCE ON COINS OF PRINCIPAL NATIONS.—VALUATION OF FOREIGN COINS AS DETERMINED BY UNITED STATES MINT ASSAYS.

RESULT OF ANNUAL ASSAY, FEBRUARY, 1874.—EXTRACT FROM REPORT OF COMMISSION, (COMMITTEE ON WEIGHING.)

Weight of arranged piles taken from the coins reserved at the mints at Philadelphia, San Francisco, and Carson during the calendar year 1873.

Mint.	Period.	Denomination.	Number of pieces.	Value.	Weight.		Deviation from legal weight.
					Legal.	Actual.	
Philadelphia..	From January 1 to March 31, 1873.	Double-eagles ...	100	\$2, 000 00	Ounces. 107. 50	Ounces. 107. 498	-.002
		Silver dollars.....	100	100 00	85. 9375	85. 945	+.0075
		Double-eagles ...	100	2, 000 00	107. 50	107. 491	-.009
		Trade-dollars ...	100	100 00	87. 50	87. 5215	+.0215
		Trade-dollars.....	100	100 00	87. 50	87. 5215	+.0215
	From April 1 to December 31, 1873.	Half-dollars ...	100	50 00	} 80. 375	80. 385	+.01
		Quarter-dollars..	100	40 00			
		Dimes.....	100	10 00			
		Double-eagles ...	54	1, 080 00			
		Silver dollars.....	1	1 00			
San Francisco.	January 1 to Mar. 31, 1873.	Half-dollars ...	1	50	} 2. 579375	2. 580	+.001375
		Half-dimes.....	33	1 65			
		Double-eagles ...	100	2, 000 00			
		Half-dollars ...	16	8 00			
		Quarter-dollars..	16	4 00			
	April 1 to June 30, 1873.	Dimes.....	50	5 00	} 13. 66375	13. 663	+.00075
		Double-eagles ...	100	2, 000 00			
		Trade-dollars.....	100	100 00			
		Half-dollars ...	50	25 00			
		Double-eagles ...	2	40 00			
Carson, Nev..	January 1 to Mar. 31, 1873.	Silver dollars.....	2	2 00	} 2. 15	2. 1495	-.0002
		Half-dollars ...	50	25 00			
		Quarter-dollars..	200	50 00			
		Dimes.....	500	50 00			
		Double-eagles ...	4	80 00	} 19. 933	19. 917	-.016
	April 1 to June 30, 1873.	Eagles.....	1	70 00			
		Half-dollars ...	48	24 00			
		Quarter-dollars..	2	50			
		Dimes.....	3	30			
	July 1 to December 31, 1873.	Double-eagles ...	20	400 00	} 28. 21875	28. 217	-.00175
		Eagles.....	7	70 00			
		Half-eagles.....	11	55 00			
		Trade-dollars.....	67	67 00			
		Half-dollars ...	50	25 00			
		Quarter-dollars..	3	75			
		Dimes.....	12	1 20			
		Trade-dollars.....	67	67 00	58. 50	58. 620	+.12

Weight of single pieces.

GOLD.

Mints.	Denomination.	Weight.		Deviation.		
		Legal.	Actual.	Heavy.	Light.	
PHILADELPHIA.						
January 1 to March 31, 1873..	Double-eagle..	516	<i>Grains.</i>	<i>Grains.</i>		
			516.28	.28	.....
			516.05	.05	.....
			515.96	.....	.04	
			515.955	.....	.045	
			515.96	.....	.04	
			515.93	.....	.07	
			515.93	.....	.07	
			515.935	.....	.065	
			515.94	.....	.06	
			516.01	.01	.....
					+.34	-.39	-.05 ÷ 10 = ÷ .005
	Eagle	258	258.19	.19	.....
			257.96	.....	.04	
					+.19	-.04	+.15 ÷ 2 = +.075
	Half-eagle	129	129.01	.01	.....
			128.97	.....	.03	
			128.98	.....	.02	
					+.01	-.05	-.04 ÷ 3 = -.01½
	Three dollar ..	77.4	77.41	+.01	.....	+.01 ÷ 1 = +.01
	Quarter-eagle .	64.5	64.65	+.15	.....
			64.46	.....	-.04	
					+.15	-.04	+.11 ÷ 2 = +.055
	Dollar	25.8	25.78	.....	-.02	-.02 ÷ 1 = -.02
April 1 to December 31, 1873..	Double-eagle..	516	515.96	.....	.04	
			515.94	.....	.06	
			515.91	.....	.09	
			515.97	.....	.03	
			515.91	.....	.09	
			516.06	.06	.....
			515.90	.....	.10	
			516.	.....	
			515.92	.....	.08	
			515.92	.....	.08	
				+.06	-.57	-.51 ÷ 10 = -.051
	Half-eagle	129	128.93	.....	.07	
			129.03	.03	.....
			129.	.....	
			129.02	.02	.....
			128.97	.....	.03	
					+.05	-.10	-.05 ÷ 5 = -.01
	Quarter-eagle .	64.5	64.52	.02	.....
			64.49	.....	.01	
			64.44	.....	.06	
			64.48	.....	.02	
			64.47	.....	.03	
					+.02	-.12	-.10 ÷ 5 = -.02
	Dollar	25.8	25.8	.....	
			25.77	.....	.03	
			25.82	.02	.....
			25.70	.....	.10	
			25.77	.....	.03	
					+.02	-.16	-.14 ÷ 5 = -.028

Weight of single pieces—Continued.

SILVER.

Mints.	Denomination.	Weight.		Deviation.		
		Legal.	Actual.	Heavy.	Light.	
PHILADELPHIA—Cont.						
January 1 to March 31, 1873 ..	Dollar	<i>Grains.</i> 412.5	<i>Grains.</i> 412.80 412.63 412.49 412.50 412.77	.30 .13 .27	 .01 	
				+.70	-.01	+ .69 ÷ 5 = + .138
	Half-dollar....	192	192.09 191.40 191.73 191.80 192.50 192.18 192.75 191.40 191.70 191.60	.09 .50 .18 .75 .30 .40	 .60 .30 .40	
				+ 1.52	- 2.37	- .85 ÷ 10 = - .085
	Quarter-dollar.	96	95.87 95.57 95.82 96.02 96.07 96.03 95.92 96.33 96.06 95.47	 .02 .07 .03 .33 .06 	.13 .43 .18 .08 .53	
				+.51	- 1.35	- .84 ÷ 10 = .084
	Dimes	38.4	38.24 38.10 38.30 38.30 38.50	 .10	.16 .30 .10 .10 	
				+.10	-.66	5 C ÷ 5 = - .112
	Half-dimes....	19.2	19.05 19.34 19.23	 .14 .03	.15 	
				+.17	- .15	+ .02 ÷ 3 = + .006⅔
	Three-cent....	11.52½	11.80½ 11.79½ 11.66½	.28 .27 .14	 	
				+.69		+ .69 ÷ 3 = + .
April to December 31, 1873...	Trade-dollars .	420	419.94 420.15 420.35 419.77 420.15 420.15 420.01 420.18 420.12 420.58 420.20 420.11 420.09 419.99 420.07 420.26 420.10 420.14 420.24 420.50	 .15 .35 .15 .15 .01 .18 .12 .58 .20 .11 .09 .07 .26 .10 .14 .24 .50	.06 .23 .01 	
				+ 3.40	- .30	+ 3.10 ÷ 20 = + .155

Weight of single pieces—Continued.

SILVER—Continued.

Mints.	Denomination.	Weight.		Deviation.			
		Legal.	Actual.	Heavy.	Light.		
PHILADELPHIA—Cont.							
April to December 31, 1873...	Half-dollars...	<i>Grains.</i> 192.9	<i>Grains.</i> 193.46	.56	-----		
			193.26	.36	-----		
			191.80	-----	1.10		
			192.77	-----	.13		
			193.52	.62	-----		
			192.	-----	.90		
			192.98	.08	-----		
			193.04	.14	-----		
			192.50	-----	.40		
			192.74	-----	.16		
			+ 1.76		— 2.69		— .93 ÷ 10 = — .093
			Quarter-dollar.	96.45	96.11		-----	.34
	96.79	.34			-----		
	96.23	-----			.22		
	95.90	-----			.55		
	96.49	.04			-----		
	96.65	.20			-----		
	95.75	-----			.70		
	96.41	-----			.04		
	+ .58		— 1.85	— 1.27 ÷ 8 = — .15½			
	Dime	38.58	38.56	-----	.02		
			38.73	.15	-----		
			38.64	.06	-----		
			38.41	-----	.17		
			38.63	.05	-----		
			+ .26		— .19		+ .07 ÷ 5 = + .014

GOLD.

SAN FRANCISCO.						
January to March, 1873	Double-eagle..	516	516.02	.02	-----	
			516.01	.01	-----	
			+ .03		-----	+ .03 ÷ 2 = + .015
			-----		-----	
April to June, 1873.....	Double-eagle..	516	516.12	.12	-----	
			516.01	.01	-----	
			516.14	.14	-----	
			516.09	.09	-----	
			516.04	.04	-----	
			+ .40		-----	+ .40 ÷ 5 = + .08
			-----		-----	
July to December, 1873.....	Double eagle..	516	516.20	.20	-----	
			516.	-----	-----	
			516.09	.09	-----	
			516.07	.07	-----	
			515.89	-----	.11	
			+ .36 — .11		-----	+ .25 ÷ 5 = + .05
			-----		-----	
	Eagle.....	253	253.06	.06	-----	
			254.99	-----	.01	
			+ .06 — .01		-----	+ .05 ÷ 2 = + .025
			-----		-----	
	Half-eagle	129	128.92	-----	.08	
			129.13	.13	-----	
			129.08	.08	-----	
			129.05	.05	-----	
			129.04	.04	-----	
			+ .30 — .08		-----	+ .22 ÷ 5 = + .044
			-----		-----	
	Quarter-eagle .	64.5	64.5	-----	-----	
			64.54	.04	-----	
			64.54	.04	-----	
			64.55	.05	-----	
			+ .13		-----	+ .13 ÷ 4 = + .03¼
			-----		-----	

Weight of single pieces—Continued.

SILVER.

Mints.	Denomination.	Weight.		Deviation.							
		Legal.	Actual.	Heavy.	Light.						
SAN FRANCISCO—Cont.											
January to March, 1873	Half-dimes.....	<i>Grains.</i> 19.2	<i>Grains.</i> 18.8238						
			19.1802						
			19.0812						
			19.50	.30						
			18.9327						
				+.30	-.79		-.49 ÷ 5 = -.098				
April to June, 1873.....	Half-dollar....	192.9	192.5040						
			193.05	.15						
			193.53	.63						
			191.77	1.13						
				+.78	-1.53		-.75 ÷ 4 = -.1875				
				Quarter-dollar.	96.45		96.63	.18		
96.20	.....	.25							
96.17	.....	.28							
96.20	.....	.25							
	+.18	-.78				-.60 ÷ 4 = -.15					
	Dime	38.58				38.70	.12			
			38.2434						
			38.76	.18						
				+.30	-.34	-.04 ÷ 3 = -.01½					
			July to December, 1873	Trade-dollar ..	420	419.6535			
						420.06	.06			
420.08	.08	.....								
419.90	.....	.10							
419.92	.....	.08							
420.07	.07	.....								
420.09	.09	.....								
419.92	.....	.08							
420.16	.16	.....								
420.05	.05	.....								
420.01	.01	.....								
420.22	.22	.....								
420.04	.04	.....								
420.03	.03	.....								
420.11	.11	.....								
420.13	.13	.....								
419.79	.....	.21							
419.94	.....	.06							
419.81	.....	.19							
419.92	.....	.08							
	+.1.05	-1.15				-.10 ÷ 20 = -.005					
	Half-dollar....	192.9				192.2565			
						193.48	.58			
						192.6525			
						193.44	.54			
						193.16	.26			
							+.1.38	-.90			+.48 ÷ 5 = +.096
	Quarter-dollar.	96.45				96.2718			
						96.55	.10			
						96.66	.21			
						96.83	.38			
							+.69	-.18			+.51 ÷ 4 = +.1275
				Dime	38.58	38.15	-.43			

Weight of single pieces—Continued.

GOLD.

Mints.	Denomination.	Weight.		Deviation.		
		Legal.	Actual.	Heavy.	Light.	
		<i>Grains.</i>	<i>Grains.</i>			
CARSON.						
January to March, 1873	Double-eagle..	516	515.72 516.19	......19	.28	- .09 ÷ 2 = - .045
				+ .19	- .28	
April to June, 1873.....	Double-eagle..	516	516.28 515.93 515.81 515.94	.28...............	.07 .19 .06	- .04 ÷ 4 = - .01
				+ .28	- .32	
	Eagle.....	258	257.93	.....	- .07	Standard. Do.
July to December, 1873.....	Eagle.....	258	258	.....	.....
	Half-eagle....	129	129	.....	.....

SILVER.

January to March, 1873	Dollar	412½	413.44 412.52	.94 .02	..... .....	+.96 ÷ 2 = +.48
				+.96	.....
	Half-dollar....	192	191.95 192.60	......60	.05	+.55 ÷ 2 = +.275
				+.60	-.05	
	Quarter-dollar.	96	96	.....	.....	Standard.
	Dime	38.4	38.05	.....	-.35	
April to June, 1873	Half-dollar....	192.9	192.74 192.82 192.79 192.61 192.85 192.32 192.06 191.95 192.84 193.50	..............................................60	.16 .08 .11 .29 .05 .58 .84 .95 .06	- 2.52 ÷ 10 = - .252
				+.60	- 3.12	
July to December, 1873	Trade-dollar ..	420	419.40 420.07 420.32 419.98 420.29 420.75 420.99 418.78 419.84 419.71	......07 .32......29 .75 .99...............	.60...........02 1.22 .16 .29	+ .13 ÷ 10 = +.013
				+ 2.42	- 2.29	
	Half-dollar....	192.9	192.61 194.18 191.98 193.22	..... 1.28......32	.29......92	+ .39 ÷ 4 = +.0975
				+ 1.60	- 1.21	
	Quarter-dollar.	96.45	96.89	+.44	.....
	Dime	38.58	38.27	.....	-.31	

From the foregoing tables it will appear that the weight of the single pieces is in all cases within the limits of legal tolerance, and in general very near the standard weight, and that the aggregate weights of the selected piles or parcels confirm the conclusion that the conformity of the coinage to the legal standard of weight is entirely satisfactory. There is a marked preponderance, however, of pieces slightly heavier than the standard in the reserved trade-dollars. The excess, however, is within the tolerance.

J. E. HILGARD,
E. B. ELLIOTT,
JNO. P. JONES,
HERBERT GRAY TORREY,
A. E. BORIE,
Committee on Weighing.

REPORT OF COMMITTEE ON ASSAYING.

The committee on assay beg leave to report that the results of the assay which have been superintended by them, of coins reserved during the year from the mints at Philadelphia, San Francisco, and Carson, melted in bulk and individual pieces, have exhibited a satisfactory conformity with the law, as will be seen by the annexed tables, reflecting credit upon the officers in the assay departments of the three institutions.

The first table annexed shows the result in detail. It will be remarked that the extreme range of fineness was, for gold coin, from .899,8 to .900,2; silver coin, from .899 to .900,8.

The committee feeling an interest to know the amount of loss sustained by standard bullion in melting, have taken note of the weight of coin before and after that operation. The second additional table exhibits the results.

Period.	Mint.	Gold coin.		Silver coin.		
		Denomination.	Fineness determined by assay.	Denomination.	Fineness determined by assay.	
First period.....	Philadelphia..	Double-eagle..	.900, 1	Quarter-dollars .....	.900, 3
Do	do	99.97 ounces...	.900	100.024 ounces.....	.900, 6	
Second period.....	do	Double-eagle..	.900, 1	Trade-dollars .....	.900
Do	do	Half-eagle .....	.899, 9	Half-dollar.....	.899
Do	do	Quarter-eagle..	.900	Dime .....	.900, 3
Do	do	99.996 ounces...	.899, 9	99.999 ounces.....	.900, 8	
First period.....	San Francisco.	Double-eagle..	.899, 8	Half-dollar.....	.900	
Do	do	54.83 ounces.....	.900	Not enough to melt .....	.....
Second period.....	do	Double-eagle..	.899, 9	Quarter-dollar .....	.900, 8
Do	do	99.98 ounces.....	.900	9.16 ounces .....	.900, 8
Third period.....	do	Eagle .....	.900	Trade-dollar .....	.900
Do	do	Half-eagle .....	.900, 2	Dime .....	.900, 8
Do	do	99.975 ounces...	.900, 1	100.002 ounces.....	.900, 6	
First period.....	Carson.....	Double-eagle..	.900	First pe- { Half-dollar.....	.900, 5	
Second period.....	do	Eagle .....	.900	riod. { 17.83 ounces .....	.900, 8
Third period.....	do	Double-eagle..	.900, 2	Second { Quarter-dollar ..	.900, 3	
Do	do	Half-eagle .....	.899, 9	period. { 14.14 ounces .....	.899, 7
Do	do	26.07 ounces.....	.899, 8	Third { Trade-dollar .....	.900
				period. { Half-dollar.....	.900, 6	
					{ 63.50 ounces.....	.900, 2

Table of lots of coin melted for assay, showing the loss in melting.

Period.	Gold—weight.		Silver—weight.	
	Before melting.	After melting.	Before melting.	After melting.
Philadelphia—	<i>Ounces.</i>	<i>Ounces.</i>	<i>Ounces.</i>	<i>Ounces.</i>
First period	99.97	99.91	100.024	99.81
Second period	99.996	99.92	99.999	99.866
		0.035		0.12
San Francisco—				
First period	54.83	54.746		
Second period	99.93	99.893	9.16	9.14
Third period	99.975	99.92	100.002	99.87
		0.095		
Carson—				
First period			17.83	17.69
Second period			14.14	14.21
Third period	26.07	26.022	63.50	63.393
		0.015		0.07
Total	480.821	480.556	404.655	404.169
	480.556		404.169	
Loss in melting	0.265		0.486	

R. E. ROGERS,
J. M. MERRICK,
R. F. TAYLOR,
ANDREW MASON,
JOHN L. LE CONTE,
HENRY COPPÉE,
Committee on Assay.

Statement exhibiting the result of assays of United States coin taken from certain deliveries in each month of gold and silver coins of each denomination, under special instructions from the Director of the Mint, June 1, 1873, to June 30, 1874.

GOLD.

Denomination.	Coined at—	Date of coinage.	Result of assay— fineness.	
Double-eagle.....	Philadelphia.....	June, 1873	.900, 3	
Do.....	do.....	do.....	.900	
Do.....	do.....	do.....	.899, 9	
Do.....	do.....	do.....	.900	
Do.....	do.....	do.....	.900, 3	
Do.....	do.....	do.....	.899, 8	
Do.....	do.....	do.....	.900, 6	
Do.....	do.....	Aug., 1873	.900, 3	
Do.....	do.....	do.....	.900	
Do.....	do.....	Sept., 1873	.900, 1	
Do.....	do.....	do.....	.900, 2	
Do.....	do.....	Oct., 1873	.900	
Do.....	do.....	do.....	.900, 5	
Do.....	do.....	Dec., 1873	.900, 2	
Do.....	do.....	do.....	.900	
Do.....	do.....	Jan., 1874	.899, 8	
Do.....	do.....	Feb., 1874	.899, 7	
Do.....	do.....	do.....	.899, 9	
Do.....	do.....	June, 1874	.900, 3	
Do.....	do.....	do.....	.900	
Do.....	do.....	do.....	.899, 9	
Do.....	do.....	do.....	.900	
Do.....	do.....	do.....	.900, 3	
Quarter-eagle.....	do.....	Nov., 1873	.900	
Do.....	do.....	Apr., 1874	.900, 7	
Dollar.....	do.....	Nov., 1873	.900	
Do.....	do.....	Apr., 1874	.900, 3	
Do.....	do.....	May, 1874	.900	
Do.....	do.....	do.....	.899, 8	
				Average, .900, 1

Statement exhibiting the result of assays of United States coin, &c.—Continued.

GOLD—Continued.

Denomination.	Coined at—	Date of coinage.	Result of assay— fineness.	
Double-eagle.....	San Francisco.....	July, 1873	.900, 2	
Do.....	do.....	Aug., 1873	.900, 3	
Do.....	do.....	Sept., 1873	.900, 2	
Do.....	do.....	Oct., 1873	.900	
Do.....	do.....	Jan., 1874	.900	
Do.....	do.....	Mar., 1874	.900, 2	
Do.....	do.....	Apr., 1874	.900, 1	
Do.....	do.....	June, 1874	.901, 1	
				Average, .900, 13
Double-eagle.....	Carson.....	June, 1873	.899, 8	
Do.....	do.....	do.....	.900	
Do.....	do.....	July, 1873	.900, 3	
Do.....	do.....	Aug., 1873	.900	
Do.....	do.....	Sept., 1873	.900, 2	
Do.....	do.....	Jan., 1874	.899, 9	
Do.....	do.....	Mar., 1874	.900, 3	
Do.....	do.....	Apr., 1874	.899, 9	
Do.....	do.....	May, 1874	.900	
Do.....	do.....	June, 1874	.900	
Eagle.....	do.....	Apr., 1874	.899, 8	
Do.....	do.....	June, 1874	.900	
Half-eagle.....	do.....	do.....	.900	
				Average, .900, 01

SILVER.

Trade-dollar.....	Philadelphia.....	July, 1873	.899, 5	
Do.....	do.....	do.....	.899	
Do.....	do.....	do.....	.898, 5	
Do.....	do.....	do.....	.900	
Do.....	do.....	Aug., 1873	.899, 75	
Do.....	do.....	do.....	.900, 5	
Do.....	do.....	do.....	.900, 25	
Do.....	do.....	Sept., 1873	.899, 2	
Do.....	do.....	do.....	.900, 2	
Do.....	do.....	Dec., 1873	.898, 5	
Do.....	do.....	Jan., 1874	.900, 2	
Do.....	do.....	do.....	.900, 2	
Do.....	do.....	Feb., 1874	.900, 5	
Do.....	do.....	Apr., 1874	.899	
Do.....	do.....	May, 1874	.898, 5	
				Average, .899, 6
Half-dollar.....	do.....	Dec., 1873	.900, 5	
Do.....	do.....	Apr., 1874	.900, 7	
Do.....	do.....	do.....	.900, 2	
Do.....	do.....	May, 1874	.900, 5	
Quarter-dollar.....	do.....	Nov., 1873	.899, 2	
Dime.....	do.....	do.....	.899, 5	
Do.....	do.....	May, 1874	.898, 7	
Do.....	do.....	do.....	.898, 5	
				Average, .899, 7
Trade-dollar.....	San Francisco.....	July, 1873	.900	
Do.....	do.....	Aug., 1873	.899, 2	
Do.....	do.....	Sept., 1873	.900, 2	
Do.....	do.....	Oct., 1873	.900, 5	
Do.....	do.....	Nov., 1873	.900	
Do.....	do.....	Mar., 1874	.900, 7	
Do.....	do.....	Apr., 1874	.900, 7	
Do.....	do.....	May, 1874	.900	
Do.....	do.....	June, 1874	.900, 6	
				Average, .900, 2
Half-dollar.....	do.....	Sept., 1873	.899, 2	
Do.....	do.....	Nov., 1873	.899, 5	
Do.....	do.....	Jan., 1874	.900, 7	
Do.....	do.....	Mar., 1874	.899, 5	
				Average, .899, 7
Trade-dollar.....	Carson.....	July, 1873	.897, 5	
Do.....	do.....	Aug., 1873	.898, 5	
Do.....	do.....	Sept., 1873	.900, 5	
Do.....	do.....	Jan., 1874	.899, 5	
Do.....	do.....	Mar., 1874	.900, 5	
Do.....	do.....	Apr., 1874	.900, 7	
Do.....	do.....	May, 1874	.899	
Do.....	do.....	June, 1874	.901, 2	
				Average, .899, 6
Half-dollar.....	do.....	July, 1873	.899, 5	
Do.....	do.....	Aug., 1873	.898, 5	
Do.....	do.....	Sept., 1873	.898, 5	
				Average, .898, 8

GOLD AND SILVER COINAGE AND TOLERANCE ON COINS OF PRINCIPAL NATIONS.

NOTE.—The silver valuation is based on the assumption that the ratio of 15½ to 1 represents the relative values of silver and gold.

ENGLAND.

(British coinage act of 1870.)

Denomination.	Gross weight.		Fineness.	Tolerance.		Value in United States money of account.
				In weight.	In fineness.	
GOLD.						
	<i>Grams.</i>	<i>Grains.</i>	<i>Thous'ths.</i>	<i>Grains.</i>	<i>Thous'ths.</i>	<i>Dolls. cts. mills</i>
Five-pound	39.94028	616.37239	.916, 666	1.00	.002	24 33 2
Two-pound	15.97611	246.54895	.916, 666	0.40	.003	9 73 3
Sovereign	7.98805	123.27447	.916, 666	0.20	.002	4 86 65
Half-sovereign	3.99402	61.63723	.916, 666	0.10	.002	2 43 325
SILVER.						
Crown	28.27590	436.36363	.925	1.81818	.004	1 09 37
Half-crown	14.13795	218.18181	.925	0.90909	.004	0 54 6
Florin	11.31036	174.54545	.925	0.72727	.004	0 44 5
Shilling	5.65518	87.27272	.925	0.36363	.004	0 22 2
Sixpence	2.82759	43.63636	.925	0.18181	.004	0 11 1
Fourpence	1.88506	29.09090	.925	0.12121	.004	0 07 4
Threepence	1.41379	21.81818	.925	0.09090	.004	0 05 6
Twopence	0.94253	14.54545	.925	0.06060	.004	0 03 7
Penny	0.47126	7.27272	.925	0.03030	.004	0 01 6

GERMAN EMPIRE.

GOLD.						
20 marks	7.96495	122.915+	.900	0.307	.002	4 76 4
10 marks	3.98247	61.457+	.900	0.153	.002	2 38 2
5 marks	1.99124	30.728+	.900	0.122	.002	1 19 1
SILVER.						
5 marks	27.7778	428.666+	.900	4.286	.003	1 07 1
2 marks	11.1111	171.466+	.900	1.714	.003	0 42 9
1 mark	5.55556	85.733+	.900	0.857	.003	0 21 4
50 pfennig	2.77778	42.867+	.900	0.428	.003	0 10 7
20 pfennig	1.11111	17.146+	.900	.....	.003	0 04 2

Monetary convention concluded December 23, 1865.

FRANCE, SWITZERLAND, ITALY, BELGIUM, AND GREECE.

Denomination.	Gross weight.		Fineness.	Tolerance.		Value in United States money of account.
				In weight.	In fineness.	
GOLD.						
	<i>Grams.</i>	<i>Grains.</i>	<i>Thous'ths.</i>	<i>Grains.</i>	<i>Thous'ths.</i>	<i>Dolls. cts. mills.</i>
100 francs.....	32.25806	497.80638	900	0.015	.002	19 29 4
50 francs.....	16.12903	248.90319	900	0.015	.002	9 64 7
20 francs.....	6.45161	99.56124	900	0.030	.002	3 85 9
10 francs.....	3.22580	49.78054	900	0.030	.002	1 92 9
5 francs.....	1.61290	24.89027	900	0.046	.002	0 96 4
SILVER.						
5 francs.....	25.	385.8	900	0.046	.002	0 96 4
2 francs.....	10.	154.32	835	0.077	.003	0 35 8
1 franc.....	5.	77.16	835	0.077	.003	0 17 9
50 centimes.....	2.50	38.58	835	0.108	.003	0 08 9
20 centimes.....	1.	15.432	835	0.154	.003	0 03 5

SCANDINAVIAN UNION.

Denomination.	Gross weight.		Fineness.	Tolerance.		Value in United States money of account.
				In weight.	In fineness.	
GOLD.						
20 krone	<i>Grains.</i> 8.9606	<i>Grains.</i> 138.279979	<i>Thous'ths.</i> 900	<i>Grains.</i> 0.023	<i>Thous'ths.</i> .0015	<i>Dolls. cts. mills.</i> 5 35 9
10 krone	4.4803	69.139989	900	0.030	.0015	2 67 9
SILVER.						
2 krone	15.	231.48	800	0.046	.003	0 51 4
1 krone	7.50	115.74	800	0.077	.003	0 25 7
50 oere.....	5.	77.16	600	0.092	.003	0 12 8
40 oere.....	4.	61.728	600	0.092	.003	0 10 2
25 oere.....	2.42	37.34544	600	0.154	.003	0 06 2
10 oere.....	1.45	22.3764	400	0.231	.003	0 02 4

AUSTRO-HUNGARIAN EMPIRE.

GOLD.						
8 guldens, (8 florins, 20 franes) ..	6.45161	99.56124	900	0.03	.002	3 85 8
4 guldens	3.22580	49.78062	900	0.03	.002	1 92 9
SILVER.						
Florin		190.518498	900	0.06	.003	0 47 6

EGYPT.

GOLD.						
Pound, or 100 piasters	8.5536	131.99	875	1	.003	4 97 4
$\frac{1}{2}$ pound	4.2768	65.995	875	1	.003	2 48 7
$\frac{1}{4}$ pound	2.1384	32.9975	875	1	.003	1 24 3
10 piasters	0.85536	13.199	875	$\frac{1}{2}$	.003	0 49 7
5 piasters	0.42768	6.5995	875	$\frac{1}{4}$	.003	0 24 8
SILVER.						
Tallari, or 20 piasters	27.7956	428.94	833 $\frac{1}{2}$	4	.003	0 99 4
10 piasters	13.8978	214.47	833 $\frac{1}{2}$	1	.003	0 49 7
5 piasters	6.9489	107.235	833 $\frac{1}{2}$	1	.003	0 24 8
2 $\frac{1}{2}$ piasters	3.47445	53.6175	833 $\frac{1}{2}$	1	.003	0 12 4
1 piaster	1.23536	19.064	750	1	.003	0 03 9
$\frac{1}{2}$ piaster	0.61768	9.532	750	1	.003	0 01 9
$\frac{1}{4}$ piaster	0.30884	4.766	750	4-5	.003	0 00 9

SPAIN.

GOLD.						
Isabella doubloon	8.3865	129.4204	900	0.03	.002	5 01 6
SILVER.						
Duro	25.96	400.61472	900	0.03	.002	1 00 1
Escudo	12.98	200.30736	900	0.03	.002	0 50 0
Peseta	5.192	80.12294	900	0.03	.002	0 20 0
$\frac{1}{2}$ peseta	2.596	40.06147	900	0.03	.002	0 10 0
Real	1.298	20.03073	900	0.03	.002	0 05 0

PORTUGAL.

Denomination.	Gross weight.		Fineness.	Tolerancee.		Value in United States money of account.		
				In weight.	In fine-ness.			
GOLD.								
	<i>Grains.</i>	<i>Grains.</i>	<i>Thous'ths.</i>	<i>Grains.</i>	<i>Thous'ths.</i>	<i>Dolls.</i>	<i>Cts.</i>	<i>Mills.</i>
Coroa, or 10 milreis	17.735	273.68652	916 $\frac{1}{2}$	0.03	.002	10	80	4
$\frac{1}{2}$ coroa, or 5 milreis	8.867	136.84326	916 $\frac{1}{2}$	0.03	.002	5	40	2
1-5 coroa, or 2 milreis	3.547	54.737304	916 $\frac{1}{2}$	0.03	.002	2	16	0
1-10 coroa, or 1,000 reis.....	1.774	27.368652	916 $\frac{1}{2}$	0.03	.002	1	08	0
SILVER.								
500 reis	12.5	192.9	916 $\frac{1}{2}$	0.03	.002	0	49	1
200 reis	5.	77.12	916 $\frac{1}{2}$	0.03	.002	0	19	6
100 reis	2.5	38.58	916 $\frac{1}{2}$	0.03	.002	0	09	8
50 reis	1.25	19.29	916 $\frac{1}{2}$	0.03	.002	0	04	9

JAPANESE EMPIRE.

GOLD.								
20 yen	33 $\frac{1}{3}$	514.41	900	$\frac{1}{10}$	.002	19	93	8
10 yen	16 $\frac{2}{3}$	257.20	900	$\frac{1}{20}$	.002	9	96	9
5 yen	8 $\frac{1}{3}$	128.60	900	$\frac{1}{40}$	.002	4	98	4
2 yen	3 $\frac{1}{3}$	51.44	900	$\frac{1}{80}$	.002	1	99	3
1 yen	1 $\frac{2}{3}$	25.72	900	$\frac{1}{160}$	.002	0	99	6
SILVER.								
Yen	26.95663	416.	900	$\frac{1}{2}$	.002	1	04	0
50 sen		208.	900	$\frac{1}{4}$	.002	0	52	0
20 sen		83.20	900	$\frac{1}{20}$	.002	0	20	8
10 sen		41.6	900	$\frac{1}{40}$	.002	0	10	4
5 sen		20.8	900	$\frac{1}{80}$	.002	0	05	2

MEXICO.

GOLD.								
20 pesos	33.841	522.234312	.875	0.030	.002	19	67	9
10 pesos	16.920	261.117156	.875	0.030	.002	9	83	9
5 pesos	8.460	130.358578	.875	0.030	.002	4	91	9
2 $\frac{1}{2}$ pesos	4.230	65.279289	.875	0.030	.002	2	45	9
1 pesos	1.692	26.1117156	.875	0.030	.002	0	98	3
SILVER.								
Peso, or dollar	27.073	417.790536	.902,777	0.046	.003	1	04	7
50 centavo	13.5365	208.895268	.902,777	0.046	.003	0	52	3
25 centavo	6.76825	104.447634	.902,777	0.046	.003	0	26	1
10 centavo	2.7073	41.7790536	.902,777	0.046	.003	0	13	0
5 centavo	1.35365	20.8895268	.902,777	0.046	.003	0	06	5

REPUBLIC OF CHILI.

(Laws of January 9, 1851, and October 25, 1870.)

GOLD.								
Condor	15.2530	235.384296	900	0.7716	.0025	9	12	3.
Doublon	7.6265	117.692148	900	0.5777	.0025	4	56	1.
Escudor	3.0506	47.076859	900	0.5777	.0025	1	82	4.
Peso	1.5253	23.538429	900	0.4629	.0025	0	91	2.
SILVER.								
Peso	25.	385.8	900	0.3086	.0025	0	96	4.
Cineuenta-cent	12.5	192.9	900	2.3148	.0025	0	43	2.
Viente-cent	5.	77.16	900	1.5432	.0025	0	19	2.
Decimo-cent	2.5	38.58	900	1.5432	.0025	0	09	6.
Medio-decimo	1.25	19.29	900	0.7716	.0025	0	04	8.

TURKEY.

Denomination.	Gross weight.		Fineness.	Tolerance.		Value in United States money of ac. count.
				In weight.	In fineness.	
	Grains.	Grains.	Thous'ths.	Grains.	Thous'ths.	Dolls. cts. mills.
GOLD.						
500 piasters	36.08	556.78656	916 $\frac{1}{2}$	0.03	.002	21 97 6
250 piasters	18.04	278.39328	916 $\frac{1}{2}$	0.03	.002	10 98 8
100 piasters	7.216	111.357312	916 $\frac{1}{2}$	0.03	.002	4 39 5
50 piasters	3.608	55.678656	916 $\frac{1}{2}$	0.03	.002	2 19 7
25 piasters	1.804	27.839328	916 $\frac{1}{2}$	0.03	.002	1 09 8
SILVER.						
20 piasters	24.055	371.216760	830	0.046	.003	0 85 6
10 piasters	12.0275	185.608380	830	0.046	.003	0 42 8
5 piasters	6.01375	92.804190	830	0.046	.003	0 21 4
2 piasters	2.4055	37.121676	830	0.046	.003	0 08 4
1 piaster	1.20275	18.560838	830	0.046	.003	0 04 2
$\frac{1}{2}$ piaster	0.601375	9.280419	830	0.046	.003	0 02 1

RUSSIA.

GOLD.						
10 3-10 rouble imperial .....			.916666			
5 3-20 half imperial	6.544	100.927008	.916666	0.03		3 98 6.
SILVER.						
Rouble	20.7315	319.928508	.868056	0.03		0 77 1.
$\frac{1}{2}$ rouble	10.36575	159.964254	.868056	0.03		0 38 5.
$\frac{1}{4}$ rouble	5.182875	79.982127	.868056	0.03		0 19 2.
1-5 rouble	4.1463	63.9857016	.868056	0.03		0 15 4
1-10 rouble	2.07315	31.9928508	.868056	0.03		0 07 7
1-20 rouble	1.036575	15.9964254	.868056	0.03		0 03 8

Statement exhibiting the average weight, fineness, and value of foreign coins as determined by United States Mint assays.

EXPLANATORY REMARKS.

1. The weight is expressed in fractions of an ounce troy, agreeing with the terms used in the United States mints.

If it is desired to have the weight of any piece in grains, regard the thousandths of an ounce as integers, take their half, from which deduct four per cent. of that half, and the remainder will be grains.

2. The fineness is expressed in thousandth parts; i. e., so many parts of pure gold or silver in 1,000 parts of the coin. The old carat system is generally abandoned, (except for jewelry,) but it may be worth while to say that 41 $\frac{2}{3}$ thousandths equal one carat.

3. The valuation of gold is at the legal rate of 25.8 grains, 900 fine, being equal to one dollar; or \$20.672 (nearly) per ounce of fine gold; with the deduction of coinage charge, $\frac{1}{8}$ of one per cent.

4. For the silver there is no fixed legal valuation, as compared with gold. The price paid at the mints varies according to demand and supply, but is stationary for considerable periods at a time, and is now 118 cents per ounce 900 fine, payable in subsidiary coin, at which rate the values are given in the table.

5. These tables generally give the one principal coin of each country, from which the other sizes are easily deducted. Thus when the franc system is used, there are generally gold pieces of 40, 20, 10, and 5 francs, all in due proportion. But in silver, the fractional coins are very often of less intrinsic value than the normal coin, proportionally. These are seldom exported.

GOLD COINS.

Country.	Denomination.	Gross weight.	Fineness.	Standard weight.	Value in United States gold coin after coinage charge of 1-5 of 1 per cent. has been deducted.
		Ounces.	Thous'ths.	Ounces.	Dolls. cts. mills.
Austria	Fourfold ducat	0.448	986	0.4908	9 11 3
Do	Souverain, (no longer coined)	0.363	900	0.363	6 74 1
Do	4 florins, (new)	0.104	900	0.104	1 93 2
Belgium	25 francs	0.254	899	0.2537	4 71 0
Brazil	20 milreis	0.575	916.5	0.5855	10 87 1
Central America	2 escudos	0.209	853.5	0.1982	3 68 1
Do	4 reals	0.027	875	0.0262	0 48 7
Chili	10 pesos, (dollars)	0.491	898	0.4899	9 09 6
Colombia and South America generally.	Old doubloon*	0.867	870	0.8381	15 56 1
Colombia	20 pesos, "Bogota"	1.033	887	1.018	18 90 2
Do	20 pesos, "Medellin"	1.034	891.5	1.0242	19 01 6
Do	20 pesos, "Popayan"	1.029	891.5	1.0192	18 92 2
Costa Rica	10 pesos	0.476	858.5	0.454	8 43 0
Denmark	20 crown	0.288	900	0.288	5 34 7
Do	Old ten-thaler	0.427	895	0.4246	7 88 4
Egypt	Bedidlik, (100 piasters)	0.275	875	0.2673	4 96 3
England	Pound, or sovereign, (new) †	0.2568	916.5	0.2615	4 85 6
Do	Pound, average, (worn)	0.2563	916.5	0.2609	4 84 3
France	20 franc	0.207	899	0.2067	3 83 8
German Empire	New 20 marks	0.256	900	0.256	4 75 3
Do	Old ten thaler, (Prussian)	0.427	903	0.4284	7 95 5
Greece	20 drachms	0.185	900	0.185	3 43 5
India, (British)	Mohur, or 15 rupees ‡	0.375	916.5	0.3818	7 08 9
Italy	20 lire	0.207	899	0.2067	3 83 8
Japan	20 yen	1.072	900	1.072	19 90 4
Mexico	Doubloon	0.86735	870.25	0.8386	15 56 9
Do	20 pesos, (empire)	1.086	875	1.0558	19 60 3
Do	20 pesos, (republic, new)	1.084	873	1.0514	19 52 2
Netherlands	10 guilders	0.215	899	0.2147	3 98 6
New Granada	10 pesos, (dollars)	0.525	891.5	0.520	9 65 5
Norway	20 crowns	0.288	900	0.288	5 34 7
Peru	20 soles	1.0357	898.75	1.034	19 20 3
Portugal	Coroa, (crown)	0.308	912	0.312	5 79 5
Russia	5 roubles	0.210	916	0.2137	3 96 8
Spain	100 reals	0.268	896.5	0.2668	4 95 4
Do	80 reals	0.215	869	0.207	3 85 6
Do	10 escudos	0.27045	897	0.2695	5 00 3
Sweden	Ducat	0.111	975	0.1202	2 23 2
Do	Carolin, (10 francs)	0.104	900	0.104	1 93 1
Do	New 20 crowns, (krone)	0.288	900	0.288	5 34 7
Tunis	25 piasters	0.161	900	0.161	2 98 9
Turkey	100 piasters	0.231	915	0.2348	4 35 9

* The *doubloon* (doblon, or more properly *onza*, though not really an ounce Spanish) is now generally discontinued, and is seldom seen here. These figures answer as well for the doubloon of Peru, Chili, Bolivia, &c., and therefore this item stands for all. Popayan pieces were rather inferior.

† The sovereigns coined at Melbourne and Sydney, in Australia, and distinguished only by the mint-marks M and S, are the same as those of the London mint. Sovereigns generally are up to the legal fineness, 916 $\frac{2}{3}$, (or 22 carats,) but we report to the half in all cases.

‡ The last coinage of *mohurs* was in 1862.

SILVER COINS.

Country.	Denomination.	Gross weight.	Fineness.	Standard weight.	Value in subsidiary silver coin at 118 cts. per standard ounce.
		Ounces.	Thous'ths.	Ounces.	Dolls. cts. mills.
Austria	Old rix-dollar	0.902	833	0.8348	0 98 5
Do	Old scudo crown	0.836	902	0.8378	0 98 8
Do	Florin, before 1858	0.451	833	0.4174	0 49 2
Do	New florin	0.397	900	0.397	0 46 8
Do	New union dollar	0.596	900	0.506	0 70 3
Do	Maria Theresa dollar, 1780	0.895	838	0.8334	0 98 3
Belgium	5 francs	0.803	897	0.8003	0 94 4
Do	2 francs	0.320	835	0.2968	0 35 0
Bolivia	New dollar	0.801	900	0.801	0 94 5
Brazil	Double milreis	0.8187	917.75	0.8348	0 98 5
Canada	20 cents	0.150	925	0.1541	0 18 1
Do	25 cents	0.1875	925	0.1927	0 22 7
Central America	Dollar	0.866	850	0.8178	0 96 5
Chili	Old dollar	0.864	908	0.8716	1 02 8
Do	New dollar	0.801	900.5	0.8014	0 94 6
China	Dollar, (English mint)	0.866	901	0.8669	1 02 3
Do	10 cents	0.087	901	0.08709	0 10 2
Denmark	2 rigsdaler	0.927	877	0.90331	1 06 5
Egypt	Piaster, (new)	0.040	755	0.0335	0 03 9
England	Shilling, (new)	0.1825	924.5	0.1874	0 22 1
Do	Shilling, (average)	0.178	925	0.1829	0 21 5
Do	Florin	0.365	925	0.3751	0 44 2
France	5 franc	0.8018	900	0.8018	0 94 6
Do	2 franc	0.320	835	0.2968	0 35 0
North German states	Thaler, before 1857	0.712	750	0.5933	0 70 0
Do	Thaler, (new)	0.595	900	0.595	0 70 2
South German states	Florin	0.340	900	0.340	0 40 1
German Empire	5 marks, (new)	0.804	900	0.804	0 94 6
Greece	5 drachms	0.719	900	0.7193	0 84 8
Hindustan	Rupce	0.374	916.5	0.380	0 44 9
Italy	5 lire	0.802	900	0.802	0 94 6
Do	Lira	0.160	835	0.1484	0 17 5
Japan	1 yen	0.8667	900	0.8667	1 02 2
Do	50 sen	0.402	800	0.3573	0 42 2
Mexico	Dollar	0.870	903	0.8729	1 03 0
Do	Half-dollar	0.435	898.5	0.4343	0 51 2
Do	Pesto of Maximilian	0.861	902.5	0.8633	1 01 8
Netherlands	ƒ guilders	0.804	944	0.8433	0 99 5
Norway	Specie daler	0.927	877	0.9033	1 06 5
New Granada	Dollar of 1857	0.803	896	0.7994	0 94 3
Peru	Old dollar	0.866	901	0.8669	1 02 3
Do	Dollar of 1858	0.766	900	0.766	0 90 3
Do	Half-dollar of 1835-38	0.433	650	0.3127	0 36 9
Do	Sol	0.802	900	0.802	0 94 6
Portugal	500 reis	0.400	912	0.4053	0 47 8
Roumania	2 lei, (francs,) new	0.322	835	0.2987	0 35 2
Russia	Rouble	0.667	875	0.6484	0 76 5
Spain	5 pesetas, (dollars)	0.800	900	0.800	0 94 4
Do	Peseta, (pistareen)	0.160	835	0.1484	0 17 5
Sweden	Riksdaler	0.273	750	0.2275	0 26 8
Switzerland	2 francs	0.320	835	0.2969	0 35 0
Tunis	5 piasters	0.511	898.5	0.5101	0 60 2
Turkey	20 piasters	0.770	830	0.7101	0 83 7

No. 3.

Mint circular of April 5, 1873, and replies thereto.

Mint circular of July 1, 1873, and replies thereto.

Circular requesting information in relation to moneys of account, value of standard coin, &c.

TREASURY DEPARTMENT,

Office of the Director of the Mint, April 5, 1873.

1. What is the unit of the money of account of the country to which you are accredited?
2. Is gold or silver, or both metals at fixed rates, the standard of value?
3. What quantity of fine gold or silver is contained in the coin of exact standard weight and fineness representing the monetary unit?
4. What is the fineness, respectively, of the gold and silver coins?
5. What is the "tolerance" or "remedy of the mint" in coinage, both as to fineness and weight?

6. Are there any legal provisions continuing the coins current when reduced by abrasion below the standard and tolerance allowed in manufacture and issue? If so, what is the limit allowed?

7. What are the legal provisions as to the recoinage of gold and silver coins the weight of which is reduced below the least current weight; and are the loss and expense of recoinage defrayed by the state or individual holders?

8. If practicable, transmit a copy of the mint-laws and the regulations affecting the coinage of the country.

H. R. LINDERMAN,
Director of the Mint.

Approved:

WM. A. RICHARDSON,
Secretary of the Treasury.

CANADA.

Answers to queries sent to the minister of finance by the United States consul-general.

1. The dollar: which is declared to be such that the British sovereign of the weight and fineness now prescribed by the laws of the United Kingdom shall be equal to and pass current for \$4.86 $\frac{2}{3}$. The gold eagle of the United States of America, coined after the 1st of July, 1834, and before the 1st day of January, 1852, or after the said day; but while the standard of fineness for gold coins then fixed by the laws of the United States remains unchanged, and weighing ten pennyweights eighteen grains troy-weight, passes current and is a legal tender in Canada for \$10, unless and until it shall be otherwise ordered by proclamation, (which has not yet been done,) and gold coins of the United States being multiple and halves of the said eagle, of like date and proportionate weights, pass current, and are a legal tender for proportionate sums.

2. Gold, at the rates aforesaid, to any amount; silver only to the amount of \$10 in one payment. The silver coins which have been struck, or may be struck hereafter, by order of Her Majesty, for circulation in Canada, pass current and are a legal tender to the amount of \$10 in any one payment of the rates assigned to them by Her Majesty, these rates bearing the same proportion to the intrinsic value of the coins as the nominal value of British silver coins bears to their intrinsic value; that is, as 66 is to 62, nearly.

3. No gold coin has yet been struck for Canada, British and American gold, at the rates above mentioned, being the only gold coins made current by the currency act, (see copy;) though Her Majesty may make other foreign gold coins current at rates proportionate to their intrinsic value by proclamation.

4. The British gold coins are $\frac{11}{12}$ parts gold and $\frac{1}{12}$ alloy. The silver coins are 12 ounces 2 pennyweights pure silver and 18 pennyweights alloy on the pound troy.

5. The "tolerance" or "remedy" as regards any gold coin which might be coined for use in Canada would be the same as that adopted for British gold coin.

6 and 7. There are no legal provisions in Canada on the points mentioned in these questions, except that to be current, and be a legal tender in Canada, the gold coins must be of the standard weights above mentioned; that of the sovereign being 5 pennyweights 3 $\frac{1}{2}$ grains. There is no mint in Canada. The regulations for recoinage of any coin struck specially for use in Canada would be those of the English mint.

8. A copy of the Canadian currency act, 34 Vict., cap. 4, is sent with this memorandum. It has not yet been formally extended to British Columbia and Prince Edward Island, but will certainly be so, and in all public matters and accounts its provisions are now adopted in both those provinces, and the local laws of both are already nearly identical with it.

[34 Vict., cap. 4, assented to April 14, 1871.]

AN ACT to establish one uniform currency for the Dominion of Canada.

Whereas it is expedient to establish one uniform currency for the whole Dominion of Canada: Therefore Her Majesty, by and with the consent of the senate and house of commons of Canada, enacts as follows:

1. On and after the 1st day of July, in the present year of our Lord one thousand eight hundred and seventy-one, the currency of the province of Nova Scotia shall be the same as that of the provinces of Quebec, Ontario, and New Brunswick, in all of which one currency, of the uniform value hereinafter mentioned, has been and is now used.

2. The denominations of money in the currency of Canada shall be dollars, cents, and mills, the cent being one-hundredth part of a dollar and the mill one-tenth part of a cent.

3. On and after the said 1st day of July, 1871, the currency of Canada shall be such that the British sovereign, of the weight and fineness now prescribed by the laws of the United Kingdom, shall be equal to and pass current for \$1.86 $\frac{2}{3}$ of the currency of Canada, and the half sovereign, of proportionate weight and like fineness, for one-half the said sum; and all public accounts throughout Canada shall be kept in such currency, and in any statement as to money or money-value, in any indictment or legal proceeding, on or after the said day, the same shall be stated in such currency; and in all private accounts and agreements rendered or entered into on or after said day, all sums mentioned shall be understood to be in such currency, unless some other is clearly expressed, or must, from the circumstances of the case, have been intended by the parties.

4. All sums of money payable on and after the said day to Her Majesty, or to any party, under any act or law in force in Nova Scotia passed before the said day, or under any bill, note, contract, agreement, or other document or instrument made before the said day, in and with reference to that province, or made after the said day out of Nova Scotia and with reference thereto, and which were intended to be, and, if such alteration of the currency as aforesaid had not been made, would have been payable in the present currency of Nova Scotia, shall, on and after the said day, be represented and payable, respectively, by equivalent sums in the currency of Canada; that is to say, for every seventy-five cents of Nova Scotia currency by seventy-three cents of Canada currency, and so in proportion for any greater or less sum; and if in any such sum there be a fraction of a cent in the equivalent in Canada currency, the nearest whole cent shall be taken.

5. On and after the said day, no dominion note or bank-note payable in any other currency than the currency of Canada shall be issued or re-issued by the government of Canada or by any bank; and all such notes issued before the said day shall, as soon as practicable, be called in and redeemed, or notes payable in the currency of Canada shall be substituted or exchanged for them.

6. On and after the said day any gold coins which Her Majesty may cause to be struck for circulation in Canada, of the standard of fineness prescribed by law for the gold coins of the United Kingdom, and bearing the same proportion in weight to that of the British sovereign, which five dollars bear to four dollars eighty-six and two-thirds of a cent, shall pass current and be a legal tender in Canada for five dollars, and any multiples or divisions of such coin which Her Majesty may cause to be struck for like purposes shall pass current and be a legal tender in Canada at rates proportionate to their intrinsic value, respectively; and any such coins shall pass by such names as Her Majesty may assign to them in her proclamation declaring them a legal tender, and shall be subject to the like allowance for remedy as British coin.

7. The silver, copper, or bronze coins which Her Majesty has caused to be struck for circulation in the provinces of Quebec, Ontario, and New Brunswick, under the acts now in force in the said provinces, respectively, shall continue to be current and a legal tender therein, and shall, on and after the said day, be current and a legal tender in the Province of Nova Scotia at the rates in the said currency of Canada now assigned to them, respectively, by the said acts, and under the like conditions and provisions; and such other silver, copper, or bronze coins as Her Majesty may cause to be struck for circulation in Canada shall pass current and be a legal tender in Canada at the rates to be assigned to them, respectively, by Her Majesty's royal proclamation, such silver coins being of the fineness now fixed by the laws of the United Kingdom, and of weights bearing, respectively, the same proportion to the value to be assigned to them which the weights of the silver coins of the United Kingdom bear to their nominal value; and all such silver coins aforesaid shall be a legal tender to the amount of \$10, and such copper or bronze coins to the amount of 25 cents, in any one payment; and the holder of the notes of any person or corporation to the amount of more than \$10 shall not be bound to receive more than that amount in such silver coins in payment of such notes, if presented for payment at one time, although each or any of such notes be for a less sum.

8. No other silver, copper, or bronze coins than those which Her Majesty shall have caused to be struck for circulation in Canada, or some province thereof, shall be a legal tender in Canada.

9. Her Majesty may, by proclamation, from time to time, fix the rates at which any foreign gold coins of the description, date, weight, and fineness mentioned in such proclamation shall pass current and be a legal tender in Canada, provided that, unless and until it is otherwise ordered by any such proclamation, the gold eagle of the United States of America, coined after the 1st day of July, 1834, and before the 1st day of January, 1852, or after the said day, but while the standard of fineness for gold coins then fixed by the laws of the said United States, remains unchanged, and weighing ten pennyweights eighteen grains, troy-weight, shall pass current, and be a legal tender in Canada for ten dollars, and the gold coins of the said United States, being multiples and halves of the said eagle, and of like date and proportionate weights, shall pass current and be a legal tender in Canada for proportionate sums.

10. The stamp of the year on any foreign coin made current by this act, or any proclamation issued under it, shall establish *prima facie* the fact of its having been coined in that year, and the stamp of the country shall establish *prima facie* the fact of its being of the coinage of such country.

11. The first, second, sixth, and seventh sections of chapter eighty-three of the revised statutes of Nova Scotia, third series, and so much of any other part of the said chapter as may be inconsistent with this act; the fifteenth chapter of the consolidated statutes of the late province of Canada; the act of the legislature of the province of New Brunswick, passed in the fifteenth year of Her Majesty's reign, chapter eighty-five; the act of the said legislature passed in the sixteenth year of Her Majesty's reign, chapter thirty-three; the act of the said legislature passed in the twenty-third year of Her Majesty's reign, chapter forty-eight, except section two; and the act of the Parliament of Canada, passed in the thirty-first year of Her Majesty's reign, chapter forty-five, except section two, shall be repealed on and after the said 1st day of July, 1871, as shall also all other acts and parts of acts inconsistent with this act.

PORTUGAL.

LEGATION OF THE UNITED STATES,
Lisbon, June 16, 1874.

SIR: In reply to your "circular requesting information in relation to moneys of account, value of standard coin," &c., I have the honor to transmit the following data, which I have obtained from the director of the mint in Lisbon:

1. The unit of the money of account of the country is the real.
2. Both gold and silver is the standard of value—gold at 563.856 reis each kilogram, and silver 40 reis each gram.
3. The weight of the silver coin of 500 reis is 12.5 grams in .916,66. The weight of the gold coin of 5,000 reis is 8.867 grams in .916,66.
4. The fineness of the coin, both gold and silver, is .916,66 per mil.
5. The "tolerance," both as regards fineness and weight of gold coin, is 2 per mil.
6. There is no law on the subject.
7. There are no legal provisions as to the recoinage of gold and silver coins. The expense of coinage and recoinage is defrayed by individual holders, but the government has the power and occasionally issues a decree permitting it to be done gratuitously.
8. A copy of the mint laws has been transmitted to your address, care of the Department of State.

I am, sir, your obedient servant,

CH. H. LEWIS.

H. R. LINDERMAN, Esq.,
Director of the Mint.

PORTUGAL COINAGE LAW.

Ferdinand, reigning King of Portugal, Algarvel, &c., in the name of the King (Peter V) communicate to all subjects of His Majesty that the general court decree, and we desire, the following law:

ARTICLE 1. The gold coins of 916 $\frac{2}{3}$ per 1,000 fine gold, called corôas, will have the weight of 17^{gr}.735, and represent the value of 10 milreis.

(1.) The half corôas, of the same metal and standard, will have the weight of 8^{gr}.863, and represent the value of 5 milreis.

(2.) The fifth corôas, of the same standard, will have the weight of 3^{gr}.547, and represent the value of 2 milreis.

(3.) The tenth corôas, of the same standard, will have the weight of 1^{gr}.774, and represent the value of 1,000 reis.

ARTICLE 2. The old gold coins called peças, of 916 $\frac{2}{3}$ per 1,000 fine gold, will continue to be received as legal money with the value of 8,000 reis, in case they have the weight of 14^{gr}.188. The half peças, of the same standard, will also continue to be received as legal money, with the value of 4,000 reis, in case they have the weight of 7^{gr}.094.

ARTICLE 3. The English gold coins called sovereigns, of 916 $\frac{2}{3}$ per cent. fine gold, will continue to have legal-tender of 4,500 reis, in case they have the weight of 7^{gr}.981. The half sovereigns, of the same standard, will also be received at 2,250 reis in case they have the weight of 3^{gr}.99.

ARTICLE 4. The state allows, in all coins of which the above articles speak, a tolerance of 2 per cent. in weight and 2 per cent. in standard.

ARTICLE 5. One hundred and twenty grains manufactured silver, of the standard of 918 $\frac{3}{4}$, will be divided into coins, as follows:

1. In 10 pieces, each of 12^{gr}.5, representing the value of 500 reis, called cinco tostões.
2. In 25 pieces, each 5 grains, value 200 reis, called dois tostões.
3. In 50 pieces, each 2^{gr}.5, representing the value of 100 reis, called tostão.
4. In 100 pieces, each 1^{gr}.25, representing the value of 50 reis, called meio tostão, (half tostão.)

ARTICLE 6. The gold coins of which the first article speaks will be stamped with the

same form of coinage which those corresponding with them actually have, with the difference of the effigy and inscription which designate the new reign.

The new silver coins of 500 reis will have on one side the effigy of the King, with the inscription on the edge, "Petrus 5, Portugaliae et Algarbiorum, Rex," and under the effigy the year in which they were coined; on the other side they will have the national arms, and under it the number 500, which designates, in reis, the value.

The coins of 200 reis and of 100 reis will have the King's effigy on one side, the inscription and the year, as in the foregoing, but on the other side they will only have two laurel branches, interlaced and parallel with the edge, with the numbers 200 or 100.

The coins of 50 reis will have a crown on one side, and around it the same inscription as the foregoing, and also the year; and on the other side the laurel branches with the number 50.

ARTICLE 7. A tolerance is allowed of 2 per cent. in weight and standard on all coins spoken of in article 5.

ARTICLE 8. A tolerance is allowed of 2 per cent. in weight and standard on all coins spoken of in article 5.

ARTICLE 9. The gold corôas and their divisions, coined as per law of 15th of February, 1851; the silver coins called corôas and their divisions, created by law of 24th April, 1835; the once called new cruzadoes and their divisions, and the old coins of 100 and 50 reis; and also the foreign silver coins whose circulation is legally authorized, will lose their character as legal coins at the end of two months in Lisbon, and four months in the provinces, to be dated from the publication of the present law.

1. During the time mentioned in this article, and thirty days after it, the government is obliged to change for legal money the coins spoken of in this article for their nominal value in case they have not been clipped.

2. During the whole time fixed for exchange in the foregoing paragraph, the gold and silver coins withdrawn from circulation will be received at all public banks in any payment to the state as legal money, in consequence of the dispositions of this article.

ARTICLE 10. In no payment, whatever be its importance, or the origin of the engagement it arises from, is the creditor obliged to receive more than 5,000 reis of the silver coins ordered to be coined after the requirements of article 5. This regulation is extended to the obligations contracted before the publication of the present law, even if they have named the gold or silver coins, or if the kind of coins is described in which the payments shall be made.

ARTICLE 11. The terms of three months for the Bank of Portugal and four months for the Commercial Bank of Oporto having passed, the notes of the banks will exclusively represent gold money, and shall be paid only in gold. This disposition alters nothing which has been established in regard to notes in copper.

ARTICLE 12. Individuals, banks, or any association can coin at the national mint any quantity of gold of 916 $\frac{2}{3}$ per cent., in corôas, half corôas, fifth of corôas, and tenth of corôas, paying the sum of 1,000 reis for each kilogram.

ARTICLE 13. The state reserves to itself the exclusive manufacture and issue of silver and copper coins. No issue of silver or copper coins can be made without the amount being in advance fixed by the law. This regulation will only be carried out so far as silver coins are concerned since the 1st of February, 1855, and there must be published officially in the *Diario del Governo* a monthly statement of the silver which has been coined until this time.

ARTICLE 14. The government will represent the courts in the session of 1855, at which time a circumstantial report will be presented, in which the amount of gold and silver coins the treasury has changed will be declared, the cost and amount of gold and silver coins that have been coined, and the designation of their value, and every and any acts they have effected in order to fulfill the requirements of this law.

ARTICLE 15. All other legislation opposed to this will be revoked.

We hereby order all authorities who are concerned in the knowledge and execution of this law that they fulfill it, and cause it to be carried out and executed as entirely as it is stated therein.

The minister and secretary of state and treasurer shall direct its publication and circulation.

Given at the Palace of Necessidades July 29, 1854, signed and sealed.

Re-Regente,

By ANTONIO MARIA DE FOUTES PEREIRA DEL MELLO.

Law by which your majesty, having confirmed the decree of the court of 22d June, 1855 which regulates the weight and value of corôas, half corôas, fifth corôas, and tenth corôa, gold, the weight and value of the new silver coins which shall be coined, determining that the present gold and silver corôas cease to be legal money, as well as their divisions, the new cruzadoes and their divisions, the old coins of 100 reis and 50 reis, and the foreign silver coins, of which the circulation was allowed, and establishing several precautionary laws, for this purpose do now publish said decree in the prescribed form.

For your majesty,

By LEOPOLD AUGUSTUS CORRERÀ DE SA.

EGYPT.

AGENCY AND CONSULATE GENERAL
OF THE UNITED STATES IN EGYPT,
Cairo, January 16, 1874.

SIR: I have only been able within the last few weeks to procure the necessary information called for in your circular letter of April 5, 1873, and I now have the honor to answer your questions concerning the monetary system of Egypt, as follows:

1. The unit of the money of account of Egypt is represented by the Egyptian pound, which contains 100 piasters.

2. Both gold and silver have their fixed values.

3 and 4. The Egyptian pound is composed of 87.5 parts of pure gold and of 12.5 alloy. The different parts or divisions of the Egyptian pound are composed of the same proportions of pure gold and alloy. They exist under the form of the half pound and the quarter pound and are subdivided into pieces of gold of the value of 10 piasters, called *nesf-massrich*, and of 5 piasters.

The silver money of the country is divided into two groups. In the first group the principal piece is the *tallari*, of 20 piasters, which is composed of 833 $\frac{1}{3}$ parts of pure silver and of 166 $\frac{2}{3}$ parts of alloy per 1,000, and is divided into pieces of 10, 5, and 2 $\frac{1}{2}$ piasters, of the same proportions of pure silver and alloy as the *tallari*. The second group consists of the small silver moneys, the principal piece of which is of the value of 1 piaster, and is composed of 750 parts of pure silver and 250 parts of alloy per 1,000. It is subdivided into pieces of a half piaster and a quarter of a piaster, which are composed of the same proportion of pure silver and alloy. The weight of the Egyptian pound is 43 carats and $\frac{3}{4}$ of a drachm, and its divisions follow the same proportion. The *tallari* weighs 9 drachms, and its divisions are of proportionate weight. As regards the small money, "*petite monnaie*," each 100 piasters weigh 40 drachms.

5. The "tolerance" of the mint in coinage, in so far as regards the purity and standard of the metal, is 3 per 1,000 for silver and gold pieces, without distinction. The "tolerance" in the weight admitted for gold coins is one-fourth of a carat for the pound, the half pound, and the quarter pound, and one-eighth of a carat for the smaller pieces in gold of 10 and 5 piasters. The "tolerance" in weight admitted for silver coins is 1 carat for the *tallari*, and one-fourth carat for the pieces of 10, 5, and 2 $\frac{1}{2}$ piasters. It is also one-fourth carat for the piaster and the half-piaster, but only one-eighth carat for the quarter of piaster.

6 and 7. When gold or silver coins have been reduced in weight by abrasion below the maximum of tolerance, the manner of proceeding is as follows: Gold and silver received at the mint from particular parties arrive in ingots, and the moneys coming from the ministry of finance are received according to the value which they have in circulation. As to the recoinage of gold and silver coins, the old coins are estimated according to their weight when received, and the gross price of the metals, gold or silver, as adopted by the mint. The loss and expense of recoinage is defrayed by the government.

8. It is not possible to obtain a copy of the mint laws or the regulations affecting the coinage of the country.

A copy of the questions contained in your letter of last April, translated into French, was forwarded to the minister of foreign affairs on the 31st of May, accompanied by an official letter requesting an official answer at as early a moment as possible. Receiving no satisfactory answer, I addressed a second note to the minister on the 17th September, to which I received a prompt answer, to the effect that answers to the questions which I had proposed were being prepared by the director of the mint. Finally, on the 24th December, the above information was received from the minister of foreign affairs.

I am, sir, very respectfully, your obedient servant,

R. BEARDSLEY,
Agent and Consul-General.

Hon. H. R. LINDERMAN,
Director of the Mint, Treasury Department, Washington, D. C.

[Translation.]

SCANDINAVIAN MINT CONVENTION.

Denmark and Sweden have lately concluded a mint treaty, which should go into effect on the 1st of January, 1874. It would have been desirable that the three Scandinavian states should have associated themselves upon this subject in a common interest, but Norway has as yet taken no part in it, perhaps for the purpose of showing once more her independence from Sweden. It is, nevertheless, to be hoped that she will shortly join the convention, when the advantages which could result from it to them all will be seen by its practical effects.

Hitherto, the only monetary standard in the kingdoms of the north has been silver, and

in this respect they were on a par with their neighbors, Hamburg especially, which, in consequence of its proximity and its great wealth, has never ceased to be the banker for all Scandinavian commerce.

The demonetization of the ancient silver mark has aroused the attention of economists and statesmen at Copenhagen and Stockholm, where, consequently, they are seeking to form a system based on gold.

The international convention was convened by the governments of Denmark, Sweden, and Norway to examine this important question, and it is from the report of this commission, presided over by M. the Count di Sponneck, that we have obtained the greater part of the information which we give in this place.

They at first sought to follow one of the systems already adopted by the great powers, and for that purpose the French system was first examined, (although it was founded on a gold standard only,) because it was supposed that that would be the universal monetary system, and also because Sweden had recommended in 1869 by adopting the decimal fraction and by coining pieces of 10 francs in gold called "carolins."

So far as a universal system was concerned, that seemed to be a hope deferred into the undeveloped future, in view of the views entertained by England and America, as also by the new German system.

The English system was founded on gold, and had the advantage of being wider spread in the world even than the franc, but the divisions of the principal coin are not convenient, and the government is not willing to take back coins diminished by use in weight, although it may have issued them. That was a sufficient reason for not adopting that system.

In the German law of December 4, 1871, there exist also several obstacles; the monetary unit, the imperial mark, does not assimilate to the Scandinavian coins. Numerous and difficult calculations would be necessary to establish the relation and proposition between the two coins.

Besides, the German system has not yet been put in practical operation, and even though it should be, the people will continue to calculate with the old thaler and the old florin, so that it would be an official coin and a nominal money in practice. Besides, Germany appears but little disposed to conclude a treaty, which would have been absolutely necessary to put in circulation the divisionary coin.

Such were the motives which prevented the northern states from deciding upon any of the systems practiced by the great nations. It cannot be said that this decision was a unanimous one. In the Swedish Parliament particularly, more than one voice was raised to oppose it, and we would especially mention M. Wallenberg, member of the upper house, director of the Stockholm Bank, whose experience on this subject is well known. It was not because he preferred the French monetary system; he was no advocate for the double standard; but he found a great inconvenience in depriving Sweden of its sole international coin, the "carolin."

"One hundred and twenty-five millions in Europe," said M. Wallenberg, "have already adopted, either wholly or in part, the franc system. Its future, it is feared, is however doubtful, as the political circumstances of late years have not been favorable to France. I am not of this opinion. Since glancing into the future to see if the days are numbered of the French system, established on a gold standard," he observes, "besides the Latin convention and the Roumania, Spain has the franc under the title of peseta; Finland under the name of mark; Austria and Hungary have coined pieces of 10 and 20 francs, whose weight and standard are similar to those of France. These pieces have a fixed value of 4 and 8 florins."

The Russian rouble is worth 4 francs, and it was perhaps a wise act on the part of Russia to permit Finland to establish a special system with a monetary unit of the value of one-quarter of a rouble.

In Russia, serious efforts have been made to return to specie payments. When this result shall have been obtained, the rouble, as a monetary unit, will be too large: it must necessarily be divided into four parts, in which event the entire Empire of Russia will adopt the franc system.

This prospect opened in favor of the French monetary system has, nevertheless, not prevailed, and the commission charged by the Scandinavian states to elaborate this question sought a system that, if it had not the advantage of being already practiced by the great powers, offered at least to the northern people the facilities of an imperceptible transition.

The following are the principal decisions of the new convention:

ARTICLE 1. Two principal coins, common to the two countries, shall be struck, the one of 248 pieces, the other of 124 pieces, from a kilogramme of fine gold. The tenth of the first coin and the twentieth of the second will be the unit of account, and will be called crown, (krone.) The crown (krone) will be divided into 100 oere.

ARTICLE 3. Gold coins will be struck with an alloy of ninety parts fine gold and ten parts copper, from which it results that the gold piece of 10 crowns (krone) should weigh 4.4803 grams of fine gold. The diameter of the 10-crown (krone) piece shall be 18 millimeters, and the 20-crown (krone) piece 23 millimeters. The bronze coins shall be of 1, 2, and 5 oere.

ARTICLE 7. The tolerance of weight granted is of 0.0015 fine for the 20-crown pieces and of 0.002 for the 10-crown (krone) pieces.

ARTICLE 10. No one is required to receive in exchange for 20-crown pieces, in small sums of 1 and 2 crowns silver, (krone,) more than 5 crowns (krone) or more than 1 crown (krone) in bronze pieces.

ARTICLE 11. Each state is reciprocally required to exchange with the principal gold coin, the divisionary money of silver and copper which may be presented to them.

ARTICLE 13. Whoever shall present gold ingots to be coined into pieces of 20 crowns (krone) shall pay at the rate of $\frac{1}{4}$ per cent., and for the pieces of 10 crowns (krone) $\frac{1}{2}$ per cent.

ARTICLE 18. This convention shall be binding for ten years at least, and shall continue in force until notice of its discontinuance is given, which should be made a year in advance. This law fixes, as is readily seen—

- 1st. The principal gold coin.
- 2d. The common unit of account.
- 3d. The decimal division.

Its relation with the old coins actually existing is in the following proportions: 1 to 1.1581 for Sweden, 1 to 1.1567 for Denmark.

The value of the gold given at the time of signature was 1.1570; consequently Sweden would lose 0.0011, while Denmark would gain a slight fraction. But in compensation for this an advantage was granted to Sweden, which was its monetary unit, that exists under the name of crown, (krone,) with the old division into 100 oere of the Swedish rigsdaler.

The relation of this monetary system with foreign coins is established as follows:

4 gold crowns, (krone,) = 45 German marks.

9 gold crowns = 125 francs.

2 gold crowns = 15 imperial marks.

The advantage that has been desired for the great German commerce will then be attained. We can also say that the gold coin of 10 crowns (krone) will be equivalent to—

- 11 English shillings.
- 13.89 francs.
- 12.25 German imperial marks.
- 2.68 dollars.

It may be remarked that no limit is imposed to the creation of divisionary money, while the Latin convention decided upon a maximum of 6 francs for each inhabitant. The recent German law also enacts that silver coins shall not exceed 10 reich marks, (imperial marks,) and copper coins $2\frac{1}{2}$ marks, *per capita*.

The contracting powers have believed that by placing in their silver coins a value of fine metal 3 per cent. superior to the silver contained in the Latin pieces, the temptation to issue this coin at a low standard would be diminished, for the reason that the benefice would be slight.

It might also be questioned whether the obligation of each state to exchange silver coins for gold would be a sufficient guarantee, for the coins being once in circulation, would be withdrawn with difficulty. It would be expensive, causing loss of interest and expense of transportation to return them to the state where their repayment should be made.

It should also be remarked that copper coins were included in the convention, and in this manner obtained a sort of forced currency.

Finally, it is to be regretted that the expense of the different coinages and the weight of tolerance has been unequally decided upon for the gold pieces of 10 and 20 crowns, (krone,) which ought not to exist under entirely identical conditions.

Such are the general provisions of this convention, which has the very great advantage of being perfectly appropriate to the needs and customs of those who are called to practice it.

For the present it only goes into effect over a very restricted population, six millions of inhabitants for Sweden and Denmark, a number which will be increased to 7,500,000 when Norway shall have joined it, as it is hoped will eventually take place.

PAUL CALON.

[Translation.]

MINT DECREE—SPAIN.

The triumph of the revolution, begun by the glorious uprising of Cadiz, renders necessary a measure of the greatest importance, the recoinage of the currency. In entering upon the new era that the political and civil reforms have opened for our country, and that never could have been reached under the previous system of government, it is well to forget the past, breaking all ties that may bind us to it, and withdrawing from commerce and public use generally such objects as may recall former events to mind.

The coinage of every age has served to show the different steps of civilization of the people, and presenting in its stamp the record or image of the reigning sovereign. As there is now in Spain no other power than that of the nation, and no other origin of authority than the

national will, the coinage should only represent a figure typical of the country, and the arms of Spain that symbolize our glorious history, until the political union under the Catholic kings, effacing, however, from that shield the Bourbon lilies and any other signs or emblems of a genealogical or personal character.

But in recoining our moneys, and incurring the expenses necessary to effect this purpose, this seems a favorable opportunity to inaugurate also a complete reform of the monetary system, assimilating it to the basis adopted at the international convention of December 23, 1865, by France, Belgium, Italy, and Switzerland. The important commercial relations that we enjoy with these nations, and which are rapidly increasing in importance, and the great facilities of exchange, &c., that would be obtained, all favor this reform. The only objection that can possibly be urged against it is the cost incident to the withdrawal of old coins and issuing of new ones; but this, as has been already stated, will have to be done in any event to obtain a coinage appropriate for present use.

The project of such a change of system has been carefully studied in its minutest details by the members of the mint junta, and by them presented to the consideration of the old government last February. Their plans, which were approved by the council of state, can be made of use now, by making a few slight and unimportant modifications, which would consist for the most part in a change of mottoes and symbols, in adding upon the coin an expression of its weight and fineness, and similar slight alterations, which would make our coinage system agree entirely with the provisions of the convention of December 23, 1865, aforesaid. Nevertheless, Spain does not at present propose to enter this monetary union, nor does the Spanish government propose to submit itself to the conditions specified in the agreement of the four nations mentioned above, until peace is definitely obtained and diplomatic relations resumed with these countries.

The government is not unaware of the difficulties inseparably connected with the proposed reform, nor of the sacrifices it will cost the country to effect it. But, besides the patriotic motives for the proposed change, the future advantages to be derived from it must demonstrate its utility. All measures that facilitate the relations of different nations are a great benefit, because they increase the channels of prosperity, better the condition of the citizen, and establish civilization and liberty. In adopting the monetary types of the convention, Spain opens her arms to her sisters of Europe, and gives a new and distinct proof of her desire to unite with them, to enter into the congress of free nations from which she has so long been excluded, against her natural wish, by the political wiles and machinations of her government.

For the above reasons, and in the use of the powers which have been conferred upon me as a member of the provisional government and chancellor of the exchequer, I decree as follows:

ARTICLE 1. In all Spanish dominions the unit of account shall be the peseta, a coin equivalent in value to 100 centimes.

ARTICLE 2. Gold coins of 100, 50, 20, 10, and 5 pesetas shall be issued, whose weight, alloy, tolerance, and diameter shall be as follows:

Class of coin.	Weight.		Fineness.		Diameter.
	Exact.	Tolerance, greater or less.	Exact.	Tolerance, greater or less.	
	<i>Grams.</i>	<i>Thousandths.</i>	<i>Thousandths.</i>	<i>Thousandths.</i>	<i>Millimeters.</i>
100 pesetas.....	32.25806	1	.....	.....	35
50 pesetas.....	16.12903	1	900	2	28
20 pesetas.....	6.45161	2	.....	.....	21
10 pesetas.....	3.22580	2	.....	.....	19
5 pesetas.....	1.61290	3	.....	.....	17

These coins shall be used in circulation in place of the old ones in all public and private transactions. Those that are $\frac{1}{2}$ per cent. in weight less than the least weight allowed, or whose marks, &c., have been obliterated altogether or in part, must be withdrawn from circulation, and will be redeemed according to the rules to be given further on.

ARTICLE 3. Similarly there will be coined silver pieces of 5 pesetas, whose weight shall be 25 grams, with tolerance, greater or less, of 3 thousandths; the fineness to be 900 thousandths, with a tolerance of 2 thousandths, and the diameter of the piece to be 37 millimeters. The receipt and circulation of these coins will be subject to the same regulations as those given for the gold coins, except that the wear and tear may amount to less than 1 per cent. before withdrawal.

ARTICLE 4. There shall also be issued pieces of 2 pesetas, 1 peseta, 50 centimes, and 20 centimes, whose weight, fineness, &c., shall be as follows:

Class of coin.	Weight.		Fineness.		Diameter.
	Exact.	Tolerance.	Exact.	Tolerance.	
	<i>Grams.</i>	<i>Thousandths.</i>	<i>Thousandths.</i>	<i>Thousandths.</i>	<i>Millimeters</i>
2 pesetas	10.	.....	.....	.....	27
1 peseta	5.	5	.....	.....	23
50 centimes.....	2.50	7	835	3	18
20 centimes.....	1.00	10	.....	.....	16

These coins shall cease to be circulated, and shall be redeemed, whenever the marks are obliterated entirely or in part, or when the loss in weight is less by 5 per cent. than the least weight allowed, nor shall they be offered as a legal tender either by public officers or among individuals in sums greater than 50 pesetas, no matter what their condition may be. Nevertheless, the state will receive them in payment of dues without limitation as to amount.

ARTICLE 5. Copper coins of the following denominations, weight, diameter, &c., shall be issued:

Class of coin.	Weight.		Fineness.		Diameter.
	Exact.	Tolerance, greater or less.	Exact.	Tolerance, greater or less.	
	<i>Grams.</i>	<i>Thousandths.</i>	<i>Thousandths.</i>	<i>Thousandths.</i>	<i>Millimeters.</i>
10 centimes	10	.....	{ 950 copper } { 40 tin } { 10 zinc }	10	30
5 centimes.....	5	10		.....	25
2 centimes.....	2	.....		5	20
1 centime.....	1	15		.....	15

These coins will be withdrawn from circulation and redeemed at the expense of the state when the obverse or reverse has been worn away altogether, or in part, by the effects of ordinary use. In no case shall copper coins be issued by public officers or private individuals as legal tender of payment in greater quantity than 5 pesetas, but public officers will receive them without limit as to quantity.

ARTICLE 6. All coins, whose size allows of it, shall bear a figure representing Spain with the proper armorial bearings, &c., indicative of national sovereignty, and will have stamped upon them also the weight, value, fineness, date of fabrication, and initials of the inspector of weight and fineness. The special conditions of coinage of each particular denomination will be set forth in special decrees by the chancellor of the exchequer, care being taken, while preserving harmony in the whole system, so to vary the character and disposition of mottoes and other details as to avoid having one class of coin mistaken for another.

ARTICLE 7. Gold coins of 100, 50, 20, 10, and 5 pesetas, and silver coins of 5 pesetas, will be coined for private individuals from old moneys of the realm without any discount or mint charges, provided that such old metal does not require any addition of gold or silver to bring it up to the required grade of fineness. In case such an alteration in the fineness has to be made, it will be at the cost of the individual, and charged according to a uniform tariff in accordance with the cost of the operation.

ARTICLE 8. Silver coins of an alloy of 835 thousandths, and all copper moneys, shall be coined on account of the state only.

ARTICLE 9. The chancellor of the exchequer will determine in his annual estimates the proportion in which the different classes of coins are to be issued, being guided by the necessities of circulation, and by the provision that the sum total of all silver coins of 835 thousandths fineness in circulation must not exceed 6 pesetas per capita, nor should the copper currency in use exceed 2 pesetas per capita.

ARTICLE 10. From the 31st of December, 1870, the use of the monetary system created by this decree shall be obligatory in all public offices as well as among individuals. The punishments entailed for a violation of this provision shall consist of fines or removal from

office, in case the offender is a public functionary, all of which will be more especially set forth in future regulations.

ARTICLE 11. Public and private contracts made before the issue of the present decree, in which payment in the coin now in circulation is expressly stipulated, may be settled in coin of the new system of equivalent value. The chancellor of the exchequer will publish, for this purpose, at the earliest opportunity, tables fixing the relative values of the old and new coinage.

ARTICLE 12. The government will take measures to authorize the admission at public offices and into general circulation of foreign coins of gold and silver whose weight and fineness correspond with those of Spain, and that are issued by countries that admit Spanish coins on a similar basis. This reciprocal use of currency will be made the subject of special treaties with the respective foreign powers.

TEMPORARY MEASURES.

As the old coins are withdrawn from circulation they will be replaced by the ones of the new coinage, and those withdrawn will be recoined to accord with this decree; the estimate for the adoption of the new system will contain in its general provisions an estimate of the loan necessary as a basis to realize this refunding of old by new coins with the greatest possible rapidity.

LAURENZO FIGUEROLA,

Chancellor of the Exchequer.

MADRID, *October 19, 1863.*

In order to effect, as speedily as possible, the changes proposed in the above decree in our monetary system, and in order to execute this interesting work with all the satisfaction that its importance requires in the use of the powers, &c., I decree as follows:

ARTICLE 1. The council of the mint shall promptly decide upon a programme of public competition to obtain designs for the new system of coinage.

ARTICLE 2. The academy of history shall also, as soon as possible, publish such information upon the armorial bearings and heraldic attributes of the nation as may be necessary in the preparation of these designs for the new coins.

ARTICLE 3. The council of the mint will decide, at its earliest opportunity, upon the details of the plan of recoinage and withdrawal of old coins, also the regulations, &c., connected with such plan, which (after approval by the secretary of the interior) is to be adopted to effect this reform in the manner most consistent with the public interests.

LAURENZO FIGUEROLA,

Chancellor of the Exchequer.

MADRID, *October 19, 1863.*

[Translation]

SAXONY:

[Dresden Journal, July 2.]

Notice concerning the introduction in the kingdom of Saxony of the reich-mark (imperial mark) system of accounts.

In virtue of the authority conferred upon the German government by the states of the confederation in article 1, paragraph 2, of the mint decree of July 9, 1873, (see paper 233 of decrees of 1873,) which permits the introduction in any single state of the reich-mark system of accounts before the date when it must become common to all the states, and with the approval of His Majesty the King, the 1st of January, 1875, is hereby designated as the date upon which the reich-mark system of accounts shall be introduced in the kingdom of Saxony.

Published for the benefit of whom it may concern.

Dresden, 29th June, 1874.

For the minister of interior.

VON BRÜCK.

Fiji.

UNITED STATES CONSULAR AGENCY,

Lunka Coulan, Fiji.

SIR: In reply to your circular of April 5, 1873, requesting information in relation to moneys of account, value of standard coin, &c., in this country, I have to inform you that the government of Fiji have adopted the decimal currency of dollars and cents as their unit of money.

Gold and silver currencies of the United States, England, France, Germany, and the Central and South American republics are in circulation here, all taken at their value, with the dollar of the United States as the standard.

This government has no mint, and consequently no coinage of its own.

Your most obedient servant,

I. M. BROWER,
Consular Agent.

H. R. LINDERMAN, Esq.,

Director of the Mint, Washington, D. C.

UNITED STATES CONSULATE, TRIPOLI, OF BARBARY.

Mr. M. Vidal to the Mint.

TRIPOLITAN MONETARY SYSTEM

Abstract of contents.—The Ottoman possessors of the regency have not by law enforced the adoption of their monetary system in the country, but have gradually withdrawn from circulation the Tripolitan coins. Scarcity of the latter. They are replaced by coins from all countries, which are adopted without either a fixed value or a relative value, as compared the one with the other. Value of the pillar Spanish dollar in Tripoli. Accepted value of the American dollar. Specimens of Tripolitan coins.

TRIPOLI, BARBARY.

UNITED STATES CONSULATE AT TRIPOLI, OF BARBARY,

December 19, 1873.

SIR: In order to comply with your circular of April 5, requesting me to transmit information in reference to the monetary system of the regency, I have endeavored, but always in vain, to make a collection of the various silver or gold coins issued in former times from the Tripolitan mint. Seeing there is a poor prospect for me to do better in the future, I will not postpone any longer communicating to you the meager information I gathered on that subject.

In the first place, no law, no regulation, was ever made in this country in regard to the *tolerance*—the coins reduced by abrasion, the recoinage of coins reduced in weight, &c. For that reason I can give no answer to your questions Nos. 5, 6, 7, and 8; and here is what I can say relating to the first four inquiries of your circular.

The unit of the money of account in the regency of Tripoli is the girsch. There are 100 Tripolitan paras in a girsch, and 8 girschs in one Tripolitan mahboob.

The system of book-keeping in this regency is, as you can see, a hybrid, partly recalling to mind the Spanish real, eight of which used to make a peso, and partly borrowed from the decimal system of the United States and France. The merchants of the place have three columns in their account-books, the same as the British people. The first column is for the mahboobs, the middle one for the girschs, and the last one for the paras. During a residence of three years in the country, I could never find a coin representing a mahboob or a para, and came, in consequence, to the conclusion that these were only nominal coins, which, for a very long time at least, had not been issued from the mint.

In 1835 the Turks made an armed irruption in the regency, sent the ruling pasha to Constantinople, where he soon died, and they have ever since occupied the country, but in the light of intruders. With the exception of the Turkish troops and a dozen or so of high functionaries, the population are Arabic, and speak nothing but the Arabic language. Their mint was closed thirty-eight years ago, but still all of them, the magistrates not excepted, continue to adhere to their national monetary system.

It is for the present the policy adopted by the United States Government to look upon the regency, with which we had treaties, and on whose shores our Navy gathered their first laurels, since the adoption of the Federal Constitution, as an independent state, which is for the time being in the power of the Sultan of Constantinople. For that very reason, and following the custom of my predecessors in this consulate, I have, in common with the whole population of the place, kept my books and settled my accounts according to the ancient Tripolitan system, and have ignored that of the Turks.

But on their own side the Ottomans have perseveringly warred against the regency coins. All those they could lay their hands on were withdrawn from circulation and sent to Constantinople, to come back no more. As a consequence, those coins have, in the course of time, become very scarce, and the people were compelled to adopt in their commercial transactions all sorts of silver and gold coins, Tunisian, Italian, French, British, and

Ottoman; but the ruling power has never abolished the old system nor enforced by law the adoption of its own.

The value of foreign coins often fluctuates in Tripoli, according to the requirements of the caravans preparing for their journey to Soudan, or the demands of the sheiks and pashas, collecting their taxes for the treasury at Constantinople. For instance, sometimes the British pound will be worth six mahboobs and a half, and at other times five mahboobs six girschs and eighty paras only. The United States and Mexican dollars never come so far as this country, but the Spanish "colonate" dollar passes in the present times for nine girschs and eighty paras, (980 paras.) Were that Spanish pillar peso really equal to our dollar, one of our dimes would be worth 93 paras. However, all the American consuls here, the first one of whom came, if I mistake not, about eighty years ago, have counted the United States cent for 10 paras instead of 9 8-10. Therefore 10 girschs, of 1,000 paras, make a dollar.

Using the generic eastern and better-known name of piaster, four of our cents are then worth a Tripolitan piaster of 40 paras. As the archives of this consulate do not include any register dating further back than 1832, I cannot say whether that rule was prescribed by the State Department or made by the consuls themselves.

After much inquiry, I met with an Arab Jew, who forty years ago was connected with the Tripolitan mint. He very obligingly gave me the list of all the different coins issued from the establishment under the old pasha, Yousouf Caramauli, such as gold sequins, sherifs, and mahboobs bichalca; and silver piasters, adeliase, and benzin-edins. But as none of those coins save the girsch, called piastra del gorba, could be found, either in Tripoli or in the other places of the regency, where I made diligent inquiry by letters, I do not think it is at all necessary to transmit any kind of information in regard to the title and value of those coins. Besides, there never was in the Barbary States such a thing as standard value of any coin. It is pretty much the same as in Soudan, where they use as money very small shells, called codâas, the relative value of which changes according to the caprice, or rather wants, of the reigning potentate. Sometimes a hashaw would give his coin a value much above its title, and at other times he would reduce the title of a coin much below its fixed value.

The piastra del gorba, the only Tripolitan girsch yet to be found in large quantities in this country, contains one-third of silver and two-thirds of base metal. I send you as specimens, herewith inclosed, two of these girschs, with two half-girschs, worth fifty paras each. One of each denomination may be analyzed, and the other ones kept in your collection.

I am, sir, with distinguished consideration, your obedient servant,

M. VIDAL,
United States Consul.

Hon. H. R. LINDERMAN,
Director of the Mint, Treasury Department, Washington, D. C.

SCANDINAVIAN UNION.

DEPARTMENT OF STATE,
Washington, September 23, 1874.

SIR: I have the honor to inclose herewith, for your information, a copy of a dispatch of the 5th instant, No. 276, from the minister of the United States at Copenhagen, in relation to a notice issued by the Danish minister of finance upon the subject of the introduction into that kingdom of a new money system, to take effect on the 1st of January, 1875.

I have the honor to be, sir, your obedient servant,

JOHN L. CADWALADER,
Acting Secretary.

Hon. BENJAMIN H. BRISTOW,
Secretary of the Treasury.

Scandinavian Union monetary unit.

No. 276]

LEGATION OF THE UNITED STATES,
Copenhagen, September 5, 1874

SIR: Referring to my No. 159 and its inclosure, of December 28, 1872, in relation to the introduction into the three Scandinavian kingdoms of a common money system based upon a common gold standard, I have now the honor to inform you that the said common money system, described in inclosure A of the said dispatch, having by law been adopted by the Kingdom of Denmark, will be introduced and take effect on the 1st of January, 1875.

The Danish minister of finance has, on the 1st of this month, caused an official notice to

be published, to the effect that all financial obligations entered into on and after January 1, 1875, shall be done on the basis of the said new money system, and that from and after that date all public and private payments shall be made in accordance with the unit of calculation of that system, namely, the gold crown, containing 100 oere, (or about 26½ cents gold.)

It might, perhaps, be well to inform the financial and commercial world of the United States of the foregoing "notice."

I have the honor to be, sir, respectfully, your obedient servant,

M. J. CRAMER.

Hon. HAMILTON FISH,

Secretary of State, Washington, D. C.

RUSSIA.

LEGATION OF THE UNITED STATES,

St. Petersburg, October 3, 1874.

SIR: * * * I inclose herewith a letter to your address from Mr. Roshkof, the director of the imperial mint, which will probably give you the information you desire.

In addition, I briefly answer your questions.

The production of gold and silver in Russia for the ten years ended 1872 was as follows:

Years.	Gold.		Silver.	
	Poods.	Pounds, Russian.	Poods.	Pounds, Russian.
1863.....	1,459	18	1,079	.....
1864.....	1,397	37	1,092	.....
1865.....	1,576	7	1,084	.....
1866.....	1,659	19	1,112	.....
1867.....	1,649	24	1,106	5
1868.....	1,711	16	1,117	31
1869.....	2,006	25	768	23
1870.....	2,156	23	867	30
1871.....	2,399	37	828	30
1872.....	2,330	30	752	5

A Russian pound is equal to 0.90282 pound avoirdupois English, or 1.09717 troy pounds English, as is seen by the following table:

1 doli =

96 doli = 1 zolotnik = 4.2656 grams.

96 zolotnik = 1 pound = 409.4876 grams = 0.90282 pound English.

40 pounds = 1 pood = 16379.5040 grams = 36.1128 pounds English.

1. The unit of the money of account in Russia is the ruble, a silver coin weighing 4 zolotniks $82\frac{1}{2}$ doli, of 83½ proof, and contains of pure silver 4 zolotniks 21 doli. The ruble is divided into 100 kopecks.

In ordinary parlance, a ruble silver means a ruble in paper; for coin, the term "metallic ruble" is used. Paper is at a discount, varying with the rate of exchange, and many other causes. At the last quotation one ruble in coin was worth one ruble $\frac{2}{100}$ in paper.

2. Silver is the standard of value. The gold coins, imperial and half-imperial, nominally worth 10 and 5 rubles, respectively, always pass for their real worth in silver, which is 10 rubles 30 kopecks and 5 rubles 15 kopecks.

3. The quantity of pure silver in the silver ruble is 4 zolotniks and 21 doli.

4. *Gold coins.*—The fineness of the imperial and half-imperial (worth in gold 10 and 5 rubles, in silver $10\frac{2}{100}$ and $5\frac{1}{100}$ rubles) is 88, *i. e.*, in a Russian pound of 96 parts, 88 parts are pure gold; or, in one thousand parts of coin metal, 916.6 parts are pure gold. Every half-imperial contains 1 zolotnik and 39 doli of pure gold, and weighs 1 zolotnik 51 doli, so that in a Russian pound of coin gold of 88 proof there are 62 half-imperials and 2.88½ rubles of pure gold.

Three-ruble pieces, 88 proof, used only in Warsaw. In one pound, Russian, of coin metal are 104 three-ruble pieces and 88½ kopecks.

Silver coins.—Silver coins are of two different kinds, (a) one of 83½ proof, *i. e.*, of the 96

parts of a Russian pound $83\frac{1}{2}$ are silver, or 868 in a thousand; (b) and the other of 48 proof, i. e., of the 96 parts of a Russian pound 48 are silver, or 500 in a thousand.

(a) To the $83\frac{1}{2}$ proof belong—

The ruble, weight 4 zolotniks $82\frac{1}{2}$ doli, containing 4 zolotniks 21 doli of pure silver; 5 pounds and 6 zolotniks of the coin metal of $83\frac{1}{2}$ proof make 100 rubles.

The half-ruble, weight 2 zolotniks 41 doli, containing 2 zolotniks $10\frac{1}{2}$ doli of pure silver.

The 25-kopek piece, weight 1 zolotnik 22 doli, containing 1 zolotnik $5\frac{1}{2}$ doli of pure silver.

(b) The pieces of 20, 15, 10, and 5 kopecks of 48 proof.

The nominal value of these coins is twice that of their real value. Private persons need not receive more than three rubles in these coins, which are struck for the convenience of making change. The government establishments, tax-offices, &c., must receive them to any amount.

5. It is a notable fact that Russia is one of the few countries in which there is no "retenue" or "usage," either of weight or of fineness, to pay the expenses of minting. The exact value of the coin is strictly adhered to. There is no "remedy" or "tolerance" except for the weight. To the half-imperial the remedy of weight is $\frac{1}{4}$ of a doli, and for 1,000 pieces, 1 zolotnik more or less than the legal weight. For the ruble pieces the remedy is 3 doli; for the 50-kopek pieces, $2\frac{1}{2}$ doli; for the 25-kopek pieces, 2 doli; for the 20-kopek pieces, $2\frac{1}{2}$ doli; for 15 and 10 kopeck pieces, 2 doli apiece, and for the 5-kopek pieces, $1\frac{1}{2}$ doli; for 1,000 rubles in ruble or half-ruble pieces, 3 zolotniks; for 1,000 rubles in 25, 20, 15, 10, or 5 kopeck pieces, 7 zolotniks more or less than the legal weight.

6, 7. The expense of coining is defrayed entirely by the state.

8. The reports of the mint are not printed, and cannot be obtained. The gold and silver coinage is chiefly sent abroad to pay government and private debts. Of the silver change money of 48 proof, about forty millions of rubles are in circulation.

There are coined yearly, of gold—

3-ruble pieces, 300,000	900,000 rubles.
Half-imperials, 300,000	19,500,000 rubles.

20,400,000 gold value.
or 21,012,000 silver value.

Silver—

Of the $83\frac{1}{2}$ proof	700,000 rubles.
Of the 48 proof	6,000,000 rubles.
	6,700,000 rubles.

Total yearly coinage..... 27,712,000 rubles.

Trusting that these imperfect answers may be of assistance to you, I have the honor to be, sir, your very obedient servant,

EUGENE SCHUYLER,
Charge d'Affaires.

H. R. LINDERMAN, Esq.,
Director of the Mint.

Translation.

ST. PETERSBURG, September 30, 1874.

SIR: First of all, permit me to express my most sincere thanks for the two documents which you were kind enough to send me. Unfortunately, I am not able, as yet, to send you a printed report of the operations of the mint in my charge, as the printing of such reports has not, so far, been usual here; but I intend soon to have this usage adopted for the mint of St. Petersburg, and will not fail to send you our annual report, when printed.

In answer to the questions propounded by you, I have the honor to communicate the following:

1. In Russia the prices of gold and silver, when paid in paper currency, ("hillets of credit,") are exceedingly variable. On September 21, 1873, the price of one Russian pound* of silver was, in paper currency, 26 rubles and 30 kopecks, and that of one zolotnick of pure gold, 4 rubles and 27 kopecks. On that date the price, in paper money, of a "half-imperial," (nominal value in gold, 5 rubles; in silver, 5 rubles and 15 kopecks,) was 5 rubles and 98 kopecks.

This is simply owing to the circumstance that the Russian standard of value—the so-called "silver ruble"—is, within the limits of the empire, since the Crimean war, depreciated "paper value." When the paper currency has to be exchanged for gold or silver coin, as,

* 1 pood = 40 pounds, 1 pound = 96 zolotniks, 1 zolotnik = 96 dolahs; 1 pound = 0.40952 kilograms: = 409.52 grams; 1 gram = 0.23443 zolotniks = 25.5 dolahs.

for instance, for the purpose of making payments abroad, the paper ruble is valued at about 85 kopecks in silver, so that one must pay for one silver ruble (coin) 1 ruble and 15 kopecks in currency.

2. The kinds of metallic money now coined in Russia are:

I. Gold coin:

a. "Half-imperials," (nominal value in gold, 5 rubles; in silver, 5 rubles and 15 kopecks,) standard, 88, (in 96 parts of a Russian pound, 83 parts fine gold; or, in 1,000 parts of alloy, 916.6 parts fine.) Each half-imperial contains 1 zolotnik and 39 dolahs fine gold, and, consequently, one Russian pound of alloy of the standard 88 yields 62 half-imperials and a residue of the value of 2 rubles and 88 $\frac{2}{3}$ kopecks in gold.

b. Gold coin of the value of three rubles in gold, standard 88, as above; the weight of it is 88 $\frac{4}{10}$ dolahs, of which 81 dolahs fine. One pound of alloy (standard 88) yields 104 three-ruble pieces and a value of 83 $\frac{2}{3}$ kopecks in gold.

II. Silver coin:

Two kinds of silver money are at present coined, namely, of the standard 83 $\frac{1}{2}$, (in 96 parts of the Russian pound, 83 $\frac{1}{2}$ parts fine silver, or 868 parts fine in 1,000 parts alloy;) and of the standard of 48, (in 96 parts of the Russian pound 48 parts fine, or 500 parts fine in 1,000 parts alloy.)

a. To the standard 83 $\frac{1}{2}$ belong the ruble, half-ruble, and 25-kopeck pieces. The ruble contains 4 zolotniks and 20 dolahs fine silver—100 rubles to five pounds and 6 zolotniks of standard alloy, (83 $\frac{1}{2}$.)

b. To the standard 48 belong the 20, 15, 10, and 5 kopeck pieces. The nominal value of this fractional coin is 50 per cent. above their actual intrinsic value; for the alloy from which it is coined contains, in 96 parts, 48 parts fine silver. By law, private persons are not obliged to receive more than 3 rubles of this fractional currency in one payment, but the imperial treasury is not subject to this limitation, and, in payments to the government, as, for instance, for taxes, &c., any amount in fractional currency is receivable.

In regard to "remedium," I have to state that it is allowed only as to weight, but none has hitherto been admitted by law as to the standard of our coin.

The remedium (above or below the legal weight) is fixed for half-imperials at $\frac{2}{3}$ dolahs apiece—1 zolotnik for 1,000 pieces; for one-ruble pieces, 3 dolahs a piece; for 50-kopeck pieces, 2 $\frac{1}{2}$ dolahs; for 25-kopeck pieces, 2 dolahs; for 20-kopeck pieces, 2 $\frac{1}{2}$ dolahs; for 15 and 10 kopeck pieces, 2 dolahs, and for 5-kopeck pieces, 1 $\frac{1}{2}$ dolahs apiece. For one thousand rubles in one-ruble pieces or in half-ruble pieces, 3 zolotniks. For one thousand rubles in 25, 20, 15, 10, or 5 kopeck pieces, 7 zolotniks.

3. The production of gold and silver in this country was—

Years.	Gold.		Silver.	
	Poods.	Pounds.	Poods.	Pounds.
1867	1,649	24	1,106	5
1868	1,711	16	1,117	31
1869	2,006	25	768	23
1870	2,156	23	867	30
1871	2,399	37	828	30
1872	2,330	30	752	5

In regard to the quantity of gold and silver in circulation, it must be observed that there is no other coin in circulation within the empire but the silver and copper fractional currency. All the gold annually coined goes abroad. Of the silver fractional coin there are at present about 40,000,000 rubles in circulation.

The metallic reserve of the Imperial State Bank amounted, according to official statements, in 1872 to 197,233,056 rubles. About the same time there were 763,869,451 rubles of paper currency in circulation.

By imperial ordinance the following coins are annually coined:

	Rubles.
Gold three-ruble coin, 300,000 pieces, nominal value in gold	900,000
Gold half-imperials	19,500,000
Total	20,400,000
Value of same in silver	21,012,000
Silver, standard 83 $\frac{1}{2}$	700,000
Silver, standard 48	6,000,000
Total of silver and gold, (nominal value in silver)	27,712,000

On the subject of the cost of coinage, I have the honor to communicate the following data:

a. Refining.—For materials consumed, (sulphuric acid, fuel, &c.,) including the copper used in precipitating the silver, the allowance is fixed at 6 rubles and 65 kopecks for each pood of unrefined metal. Thus the expense of refining a mass of 1,500 poods of gold containing silver, 1,500 poods of silver containing gold, and 1,667 poods of silver not containing gold, (which is usually added,) amounts to 31,035 rubles and 55 kopecks. At this operation, the allowance for wastage on the mass of 4,667 poods is, for silver, 9 poods and 53 zolotniks, (value 8,204 rubles;) in other words, 7 zolotniks and 40 dolahs per pood of unrefined metal. The wastage of gold in the refining department is not as yet determined by law. In the above operation the wastage of gold amounts to 5 zolotniks for each pood of fine gold obtained.*

b. Alloying.—This operation, for both gold and silver, is carried on at the central refining-room. The cost of alloying is fixed for gold at 90 kopecks per pood, (exclusive of the copper entering into the alloy.) The allowance for wastage of gold, 1 zolotnik and 60 dolahs per pood. At the melting of the clippings resulting from the stamping out of the planchets, a wastage of 3 zolotniks and 10 dolahs is tolerated. As the clippings are conveyed to the refining department in their greasy condition, and the weight of the gold cannot be ascertained with complete precision, this greater allowance for wastage is necessary. The cost of melting the clippings (for fuel, &c.) is fixed at $44\frac{1}{2}$ kopecks per pood. (The cost of labor is in no case included.) In the alloying of the silver for standard $83\frac{1}{3}$, the expense for materials is fixed at 21 kopecks per pood of fine silver. The allowance for wastage, 6 zolotniks per pood of fine silver.

The wastage and the cost of materials in the melting of silver clippings, (standard $83\frac{1}{3}$,) 7 zolotniks of silver and 17 kopecks per pood of fine silver, respectively. The expenditure for materials and the allowance for wastage in the alloying of the standard 48 are not yet fixed.

c. The cost of materials consumed in the coining-room is fixed, for gold half-imperials, at 5 rubles and 25 kopecks per each pood of fine gold, and the allowance for wastage at 2 zolotniks and 35 dolahs per pood fine.

At the coinage of the silver pieces, standard $83\frac{1}{3}$, the cost of materials is fixed at 3 rubles and 35 kopecks per 1,000 one-ruble pieces, 2 rubles 25 kopecks per 1,000 half-ruble pieces, and 1 ruble and 25 kopecks per 1,000 25-kopeck pieces. The allowance for wastage at $6\frac{1}{2}$ zolotniks per pood fine.

The expenditure for materials and the allowance for wastage in the coining of silver of the 48 standard are not yet fixed by law.

Permit me, sir, to avail myself of this opportunity to lay before you the expressions of my most distinguishing consideration.

I have the honor to be, your most obedient servant,

W. ROSHKOF,
Director of the Imperial Mint.

Hon. H. R. LINDERMAN,
Director United States Mint.

[Circular No. 91.]

Circular-letter requesting information in relation to the present annual production of gold and silver.

TREASURY DEPARTMENT,
Office of the Director of the Mint. July 1, 1873.

1. What is the amount approximately of gold produced annually from the mines of the country, and its dependencies, to which you are accredited?

2. What is the amount approximately of silver produced annually from the mines of the country, and its dependencies, to which you are accredited?

3. If practicable, you are requested to transmit copies of any documents bearing upon the subject.

H. R. LINDERMAN,
Director of the Mint.

Approved:

WM. A. RICHARDSON,
Secretary of the Treasury.

* The above allowances are exclusive of the cost of labor and the salaries of officers. The salaries of the officers (60 in number) amount to 65,950 rubles per annum. The number of officers is so large for the reason that the mint is not yet relieved from the extra work of keeping the accounts with the miners and paying out their shares. Our law requires that all the gold produced shall be turned over to the mint, where, after deduction of all legal charges, the proprietors of the mines receive the value of their gold in half imperials. The annual expenditure for labor amounts to 95,000 rubles. We have, besides, an annual appropriation of 40,603 rubles for the keeping in repair, heating, lighting, &c., of the buildings, watchmen, copyists, &c.

ENGLAND.

CONSULATE-GENERAL OF THE UNITED STATES
FOR GREAT BRITAIN AND IRELAND,
London, November 15, 1873.

SIR: I have the honor to acknowledge the receipt of your circular-letter of July 1, 1873, approved by the Hon. Secretary of the Treasury, and inquiring the amount of gold and silver produced annually from the mines of this country and its dependencies, also requesting me to transmit copies of any documents bearing upon this subject.

Upon the receipt of this circular I at once caused application to be made at the Bank of England, of the most important bullion-brokers in England, and at all other official or private sources from which it seemed probable that the desired information could be procured, but always with the same results. In consequence of the fact that the Bank of England and the statistical departments of the government do not distinguish in their returns between bullion and specie, the answer to your questions cannot be obtained.

I forward, however, statistical abstracts of the United Kingdom, of British India, and of her British colonial and other possessions, which not only corroborate my statements given above, but do furnish the amounts of bullion and specie combined produced annually for a number of years past.

I am also informed by the bullion-brokers of the Bank of England that a sum less than £50,000 is yielded annually in addition to that reported in the statistical tables, and which is the result of silver extracted from lead.

I am, sir, very respectfully, your obedient servant,

A. BADEAU,
Consul-General.

H. R. LINDERMAN,
Director of the Mint.

FALMOUTH, ENGLAND.

UNITED STATES CONSULATE,
Falmouth, November 23, 1873.

ESTEEMED FRIEND: I beg to acknowledge receipt of circular-letter dated July 1, and in reply to state that I cannot learn that any gold is produced from the mines of this district. There are a few lead and iron mines in Cornwall, but the mines are chiefly those of tin and copper.

I have obtained some particulars respecting the produce of silver in Cornwall, a statement of which I inclose.

These statistics have been obtained from the "Mineral Statistics of the United Kingdom," by Robert Hunt, esq., F. R. S., who is regarded as the most reliable authority on the subject in this country.

I am unable at present to give the returns of silver for the years 1871 and 1872, but when obtained I shall be pleased to furnish them.

I am, sir, respectfully, thy assured friend,

A. FOX,
United States Consul.

H. R. LINDERMAN, Esq.,
Director of the Mint, Treasury Department, Washington, D. C.

Silver produced in Cornwall.

Year.	Amount of silver.	Year.	Amount of silver.
	<i>Ounces.</i>		<i>Ounces.</i>
1851	255, 640	1861	173, 344
1852	250, 008	1862	205, 662
1853	200, 000	1863	206, 312
1854	179, 675	1864	192, 232
1855	211, 348	1865	214, 659
1856	248, 436	1866	195, 218
1857* .....	.....	1867	314, 326
1858* .....	.....	1868	303, 033
1859* .....	.....	1869	315, 714
1860	180, 757	1870	292, 045

* Cannot at present furnish the quantities for these years.

A. FOX,
United States Consul.

FRANCE.

Extracts from translation of a letter from Baron Bussierre, director of the mint at Paris, dated July 9, 1874.

* * * As for the respective amounts of gold and silver money in circulation in France, it is a little difficult to give an accurate estimate, but I think I shall not be far from the truth in estimating the gold at five thousand millions and the silver 5-francs at about one thousand five hundred millions.

The issue of gold in France is 7,774,520,700 francs, and of silver five thousand millions.

The Bank of France contains at the present time about seven hundred and fifty millions of gold, of which one hundred millions is bullion and about four hundred millions in 5-francs.

The coinage of French money from the commencement of the war with Prussia, July 1, 1870, to June 30, 1874, was as follows :

	Francs.
Gold	67,467,340.00
Silver 5-francs	220,882,590.00
Silver 2-francs	27,410,194.00
Silver (835 fine) 1-franc	20,209,063.00
Silver 50-centimes	4,582,490.50
Total francs	340,551,677.50
Bronze	2,600,448.95
	343,192,126.45

The formidable war debt has prevented any great exportation of French gold. The amount is estimated at eight hundred millions, of which a great part has already returned, and the 5-franc pieces are all back.

UNITED STATES CONSULATE, MARSEILLES, FRANCE.

Importations of gold, silver, and bronze in all France during the first eight months of 1872 and 1873, and of gold and silver in the port of Marseilles during the year ended December 31, 1872.

IMPORTS IN FRANCE.

Description of merchandise, and countries whence imported.		First eight months of 1873 and 1872.					
		General commerce.		Special commerce.			
		Quantities arrived.		Quantities consumed.		Actual value.	
		1873.	1872.	1873.	1872.	1873.	1872.
GOLD.		<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Francs.</i>	<i>Francs.</i>
Ingots	America, United States		700		490		
	England	7,230	17,248	4,110	17,248		
	Italy	750	755	750	755		
	Other countries	43,510	29,818	29,510	15,173		
	Total	51,490	39,521	34,370	33,666	11,685,800	11,446,216
Coin	Belgium	6,570	21,220	6,570	21,220		
	Egypt	39,363	5,139	39,360	5,139		
	England	25,870	94,050	25,870	93,729		
	Germany	12,170	49,807	12,170	49,807		
	Italy	50,230	60,680	50,230	60,680		
	Turkey	30,070	5,933	30,070	5,933		
	Other countries	62,970	46,580	62,660	43,301		
	Total	227,240	283,409	226,930	279,809	72,617,600	90,690,998

Importations of gold, silver, and bronze, &c.—Continued.

IMPORTS IN FRANCE—Continued.

Description of merchandise, and countries whence imported.	First eight months of 1873 and 1872.					
	General commerce.		Special commerce.			
	Quantities arrived.		Quantities consumed.		Actual value.	
	1873.	1872.	1873.	1872.	1873.	1872.
SILVER.						
Ingots.....	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Francs.</i>	<i>Francs.</i>
Belgium.....	803,910	274,530	803,910	274,530	.....	.....
England.....	3,827,710	752,050	3,827,710	752,050	.....	.....
Italy.....	29,070	67,120	29,070	67,120	.....	.....
Other countries.....	2,367,140	346,651	2,350,220	339,515	.....	.....
Total.....	7,027,830	1,440,351	7,010,910	1,433,215	159,147,657	32,533,971
Coin.....	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Hectogrs.</i>	<i>Francs.</i>	<i>Francs.</i>
Belgium.....	874,910	2,475,790	874,910	2,475,790	.....	.....
England.....	274,890	181,555	223,670	154,755	.....	.....
Germany.....	92,160	1,675,404	92,160	1,675,404	.....	.....
Italy.....	898,290	2,373,916	898,090	2,373,916	.....	.....
Mexico.....	1,040,690	54,891	3,670	25,178	.....	.....
Spain.....	96,510	197,206	96,510	197,206	.....	.....
Other countries.....	396,620	1,273,250	395,780	1,244,020	.....	.....
Total.....	3,674,070	8,932,012	2,584,790	8,146,269	54,022,111	170,257,029
Copper and bronze coin.....	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Francs.</i>	<i>Francs.</i>
	7,587	18,482	7,587	17,602	68,233	158,418

RECAPITULATION.

	1873.	1872.
GOLD.		
Ingots.....	<i>Francs.</i>	<i>Francs.</i>
Coin.....	11,685,800	11,446,216
	72,617,600	90,690,998
SILVER.		
Ingots.....	159,147,657	32,533,971
Coin.....	54,022,111	170,257,029
COPPER.		
Coin.....	68,233	158,418
Grand total.....	297,541,451	304,999,502

Imports of gold and silver into the port of Marseilles during the year ended December 31, 1872.

	Ingots.	Coin.	Total.	Value.
	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Kilograms.</i>	<i>Francs.</i>
Gold.....	156	8,991	9,147	27,480,000
Silver.....	10,578	76,051	86,629	17,537,200

UNITED STATES CONSULATE, MARSEILLES, FRANCE.

Exportations of gold, silver, and bronze from all France during the first eight months of 1872 and 1873, and of gold and silver from the port of Marseilles during the year ended December 31, 1872.

EXPORTS FROM FRANCE.

Description of merchandise, and countries to which exported.		First eight months of 1873 and 1872.					
		General commerce.		Special commerce.			
		Quantities exported.		Quantities exported.		Actual value.	
		1873.	1872.	1873.	1872.	1873.	1872.
GOLD.		<i>Hectogr.</i>	<i>Hectogr.</i>	<i>Hectogr.</i>	<i>Hectogr.</i>	<i>Francs.</i>	<i>Francs.</i>
Ingots	Belgium.....	120	14,023	120	14,023	.....	.....
	Italy.....	119	340	150	40	.....	.....
	Spain.....	.....	36	.....	36	.....	.....
	Other countries.....	10,693	6,141	10,692	5,931	.....	.....
	Total.....	11,012	20,540	10,962	20,030	3,727,080	6,810,288
Coin	Barbary States.....	1,173	5,367	1,173	5,367	.....	.....
	Belgium.....	16,699	43,068	16,669	43,068	.....	.....
	Egypt.....	9,041	23,537	9,041	23,537	.....	.....
	England.....	28,280	46,391	28,280	46,391	.....	.....
	British Mediterranean possessions.....	2	320	2	320	.....	.....
	Germany.....	547,545	21,436	547,545	21,436	.....	.....
	Italy.....	6,678	18,222	6,678	18,219	.....	.....
	Spain.....	3,925	1,413	3,925	1,413	.....	.....
	Switzerland.....	70,273	52,641	70,273	52,641	.....	.....
	Turkey.....	3,948	14,355	3,948	14,355	.....	.....
	Other countries.....	20,433	23,238	20,433	19,912	.....	.....
	Total.....	707,997	249,988	707,967	264,659	226,549,440	78,930,643
SILVER.							
Ingots	Belgium.....	61,413	10,213	61,413	10,213	.....	.....
	China.....	.....	.....	.....	.....	.....	.....
	England.....	160	21,650	160	21,650	.....	.....
	British India.....	8,100	57,150	8,100	57,150	.....	.....
	British Mediterranean possessions.....	.....	.....	.....	.....	.....	.....
	Germany.....	10	180	10	180	.....	.....
	Other countries.....	48,995	201,361	48,525	201,361	.....	.....
	Total.....	118,678	290,554	118,208	290,554	2,683,321	6,595,570
Coin	Belgium.....	550,737	532,009	550,737	731,249	.....	.....
	Barbary States.....	139,145	176,935	139,145	176,935	.....	.....
	China.....	600	12,110	600	12,110	.....	.....
	Cochin China.....	112,777	10,710	112,777	10,710	.....	.....
	Egypt.....	6,173	2,060	6,173	2,000	.....	.....
	England.....	138,681	355,228	138,681	345,228	.....	.....
	British India.....	.....	528	.....	528	.....	.....
	British Mediterranean possessions.....	5,370	29,470	5,370	29,470	.....	.....
	Germany.....	5,836,619	1,263,018	5,836,619	1,263,018	.....	.....
	Italy.....	6,530	20,475	6,530	20,475	.....	.....
	Spain.....	2,550	8,180	2,550	8,180	.....	.....
	Other countries.....	698,429	289,482	647,273	286,603	.....	.....
	Total.....	7,497,611	2,690,205	7,446,455	2,686,506	155,630,910	56,147,972
Copper and bronze coins.....		<i>Kilos.</i> 98	<i>Kilos.</i> 22,000				

RECAPITULATION.

	1873.	1872.
GOLD.		
Ingots	<i>Francs.</i> 3, 727, 080	6, 810, 288
Coin	226, 549, 440	78, 930, 643
SILVER.		
Ingots	2, 683, 321	6, 595, 570
Coin	155, 630, 910	56, 147, 972
Grand total	388, 590, 751	148, 484, 473

Exports of gold and silver from the port of Marseilles during the year ended December 30 1872.

	Ingots.	Coin.	Total.	Value.
	<i>Kilos.</i>	<i>Kilos.</i>	<i>Kilos.</i>	<i>Francs.</i>
Gold	5	17, 728	17, 733	53, 200, 250
Silver	9, 269	73, 333	82, 602	16, 705, 780

[Translation.]

BERLIN, W THIERGARTENSTRASSE 14, June 12, 1874.

SIR: Several journeys and press, of business have prevented me from replying sooner to your letter of March 4. It is, besides, impossible for me to give you a reliable opinion on the subject of the quantity of specie existing in France. Being governed by what I have read on this subject, I think, nevertheless, I can assure you that the estimate which you cite, of 2,500,000,000 francs in gold and 1,500,000,000 francs in silver, would be too little rather than too much.

The quantity of specie in France has always been very great. Owing to the forced currency of French bank-bills, gold does not circulate, but be assured it is still to be found in the country in a latent state, if I may so express myself. It is customary to exaggerate the effect of the payment of the war indemnity of five milliards to Germany. Official German documents prove that until December 30, 1873, there had been employed in the fabrication of new German gold coins 675,000,000 francs of French, Belgian, and Italian coins; since that period there has been scarcely any more coined. What is this sum in comparison with the eight milliards which is the sum total to which French gold coinage has reached?

Estimating the quantity of specie in a country is a hazardous experiment for whoever undertakes it. Of late many such estimates have been made in regard to Germany. They can be verified when all the old coins shall have been withdrawn from circulation. For gold coins the time will expire on the 30th of June of this year.

I have learned with great satisfaction of the veto that President Grant has made to the law proposing to increase the paper currency of the United States. A telegram which arrived yesterday informs us that the commission of Congress proposes to re-establish gold circulation for January 1, 1878. Can this proposition be adopted?

It surprises me that no action has been taken upon the proposition of President Grant in his last message in relation to redemption at first of the fractional currency in silver. It was this course which Austria took successfully some years ago. In this country, also, where they had bills even as small as a few kreutzers, (about $\frac{1}{2}$ cent,) all the small bills below a florin have been replaced by silver, to the great advantage and satisfaction of the public. The same course might be adopted in your country with all bills below one dollar.

Believe me, sir, with sentiments of the highest consideration,

ENG NOTHOMB,

Secretary of Belgian Legation at Berlin.

MR. LINDERMAN,
Director of the Mint, Washington.

GERMAN EMPIRE.

UNITED STATES CONSULATE,
Berlin, October 10, 1873.

SIR: In compliance with the instructions of circular-letter relating to the present annual production of gold and silver issued by the Director of the Mint and approved by the hon-

orable the Secretary of the Treasury, I respectfully inclose herewith, for transmission to the office of the former, a statement of the amounts of gold and silver produced from the mines in the German Empire for the year 1871.

The returns taken from official sources are the latest obtainable, and may safely be considered the amounts approximately of gold and silver produced at present annually in Germany.

I am, sir, your obedient servant,

H. KREISMANN,
United States Consul.

Hon. SECRETARY OF THE TREASURY,
Washington, D. C.

Statement of the amount of gold and silver produced from the mines of the German Empire in the year 1871.

The amount of gold produced in the German Empire was as follows :

	Zoll pounds.
1. In Prussia	48,3608
2. In Saxony	109,6630
3. In Brunswick	6,5220
Total	164,5458

In addition thereto, 279 pounds were produced from the smelting of gold-sweepings.

The amount of silver produced in the German Empire in 1871 was as follows :

	Zoll pounds.
1. In Prussia	132,259.55
2. In Saxony	62,143.41
3. In Brunswick	1,003.12
4. In Anhalt	795.35
Total	196,201.43

In addition thereto, 1,206 pounds were produced from the smelting of silver-sweepings.

H. KREISMANN,
United States Consul.

BERLIN, *October 10, 1873.*

PRUSSIA.

UNITED STATES CONSULATE,
Barmen, October 17, 1873.

SIR: In answer to your circular dated July 1, 1873, I have the honor to transmit herewith a letter of the director of the Prussian mines, relating to the questions contained in the above-mentioned circular.

I have the honor to be, sir, your obedient servant,

EMIL HOECHSTER,
United States Consul.

H. R. LINDERMAN, Esq.,
Director of the Mint, Washington.

[Translation.]

SIR: In answer to your letter of October 19, 1873, I beg to state that I am unable just now to give you the exact amount of gold and silver produced in Prussia in the year 1872. In the year 1871 the metallic gold and silver produced in the kingdom of Prussia by melting of ores were as follows:

Metallic gold: 48,361 pounds, valued at 20,773 thalers, ps., 67.

Metallic silver: 133,394 pounds, valued at 3,971.072 thalers, in 1870.

Metallic gold: 22,788 pounds, valued at 9,578 thalers.

Metallic silver: 125,260 pounds, valued at 3,741,391 thalers.

Not all the ores used for this production were taken from Prussian mines, but the amount of imported ores I am unable to state.

Respectfully yours,

THE DIRECTOR OF THE MINES, BARMEN.

AUSTRIA.

UNITED STATES CONSULATE,
Vienna, January 25, 1874.

SIR: I have the honor to forward inclosed a statement showing the amount of gold and silver produced annually in the Austro-Hungarian Empire.

I have delayed answering your circular, hoping to be able to furnish more exact information, but I am unable from any reliable data to fill those blanks which remain unfilled.

It is not practicable to transmit any documents bearing on this subject.

I am, sir, your obedient servant,

P. I. POST.

H. R. LINDERMAN, Esq.,

Director of the Mint, Treasury Department, Washington, D. C.

Production of gold and silver in the Austro-Hungarian Empire.

Year.	Cis-Leithania.	Trans-Leithania.		Total of gold from Hun- gary.	Grand total of gold from the Austro-Hungarian Empire.
	Total number of mint pounds of gold.	Total number of mint pounds of gold—			
		From govern- ment mines.	From private mines.		
1864	51.2028	1,494.4065	2,052.3907	3,546.7972	3,598.0000
1865	53.2986	1,570.3767	2,024.2117	3,594.5884	3,647.8870
1866		1,584.4160	1,644.6253	3,229.0413	3,229.0413
1867	47.0628	1,642.5531	2,012.3841	3,654.9372	3,702.0000
1868		1,565.9831	1,755.5671	3,321.4202	3,321.4202
1869	31.9622	1,578.1475	1,536.5933	3,114.7408	3,146.7030
1870		1,352.3329	1,612.3468	2,964.6797	2,964.6797
1871	17.9166	1,130.9414	1,653.3463	2,784.3057	2,802.2223

Year.	Cis-Leithania.	Trans-Leithania.		Total of silver from Hun- gary.	Grand total of silver from the Austro-Hun- garian Empire.
	Total number of mint pounds of silver.	Total number of mint pounds of silver—			
		From govern- ment mines.	From private mines.		
1864	29,681.4701	40,617.9082	11,627.6237	52,245.5299	81,927.0000
1865	29,445.8434	38,884.8350	13,369.7385	52,254.5735	81,700.4169
1866		40,765.5766	12,890.1884	53,655.7690	53,655.7690
1867	22,207.6774	40,165.9810	14,060.3736	54,226.3546	82,434.0000
1868		40,028.3723	13,991.0206	54,020.2923	54,020.2923
1869	30,465.0000	39,531.9000	12,482.4925	52,014.3925	82,479.3925
1870		30,319.8053	10,591.7662	40,911.5715	40,911.5715
1871	32,6820.000	30,715.9727	9,538.9048	40,254.8775	72,936.0000

SAXONY.

UNITED STATES CONSULATE,
Dresden, October 11, 1873.

SIR: Your circular of July 1, 1873, has only been received on September 29, 1873, at this consulate.

Immediately after the receipt of said circular, I wrote to the royal bergamt, (mine office,) at Freiberg, in order to ascertain the approximate produce of gold and silver from the mines of Saxony.

In answer to my inquiry the royal bergamt (mine office) sent me a communication, dated October 1, 1873, a copy and translation of which is hereby inclosed, (inclosures Nos. 1

and 2,) and from which communication you will please to learn that the produce of gold and silver from the mines in the Kingdom of Saxony is as follows :

	Zoll pounds
Gold :	
1869	0. 1860
1870	0. 1430
1871	0. 2320
1872	0. 0955
Silver :	
1868	66, 676. 030
1869	55, 382. 350
1870	53, 641. 715
1871	52, 573. 815
1872	48, 753. 425

As I learned from said letter of the royal bergamt that more special statistical notices could be gathered from the annals of the mining operations in the Kingdom of Saxony, (*Jahresbuch für das Berg-und Hüttenwesen im Königreiche Sachsen*.) I bought the newest edition of the work for the year 1873, which I respectfully transmit to you.

I am, sir, most respectfully, your obedient servant,

LORENZ BRENTANO,
United States Consul.

Hon. DIRECTOR OF THE MINT,
Washington, D. C.

[Inclosure No. 2.—Translation of inclosure 1.]

To Mr. BRENTANO,

Consul of the United States of America, Dresden :

In compliance with your request of the 29th ultimo, we have the honor to inform you most respectfully that the products of ore from the mines of the Kingdom of Saxony were as follows :

	Zoll pounds, gold.	Zoll pounds, silver.
1868	-----	66, 676. 020
1869	0. 1860	55, 382. 350
1870	0. 1430	53, 641. 715
1871	0. 2320	52, 573. 815
1872	0. 0955	48, 753. 425

The annals of the mining operations in the Kingdom of Saxony, which are published annually by Craz, Gerlach, at Freiburg, contain the special statistical documents.

Freiburg, October 1, 1873.

Royal bergamt,

PRAUMSDOCH.

SPAIN.

MALAGA, November 3, 1873.

SIR : I have the honor to acknowledge the receipt of your circular-letter, dated July 1, requesting information of the gold and silver product of Spain.

In answer thereto I have to inform you that gold is not found in this country in any considerable quantity. The latest published official statistical work gives the silver product in 1870 at 28,655.86 kilograms.

I have not been able to obtain any documents that seemed to me of value to you.

I am, sir, your obedient servant,

A. M. HANCOCK,
United States Consul.

Hon. H. R. LINDERMAN,
Director of the Mint, Treasury Department, Washington.

SWEDEN.

UNITED STATES CONSULATE,
Stockholm, October 30, 1873.

SIR: Pursuant to your circular of July 1, I have the honor to inform you that the annual production of gold in Sweden only amounts to about twenty Swedish skalpund a year, as will be seen from the following statement for the five years 1867-1871:

	Swedish skalpund.
In 1867	20. 31
In 1868	20. 9758
In 1869	21. 3479
In 1870	23. 9837
In 1871	14. 2794

100 avoirdupois pounds = 106 $\frac{3}{4}$ Swedish skalpund.

The silver produced during the same period amounted to—

	Swedish skalpund.
In 1867	2, 691. 15
In 1868	3, 055. 0924
In 1869	2, 907. 0997
In 1870	2, 800. 9750
In 1871	2, 292. 2630

I forward the official report of Swedish mining for the year 1874, the latest issued.

I have the honor to be, sir, your obedient servant,

NERE A. ESWING,
United States Consul.

Hon. H. R. LINDERMAN,
Director of the Mint, Washington.

UNITED STATES OF COLOMBIA.

CONSULATE OF UNITED STATES OF AMERICA,
Cartagena, United States of Colombia, October 30, 1873.

SIR: Your circular-letter of July 1, requesting information as to the approximate amount of gold and silver produced annually from the mines of this country, was only received about the first of the present month.

There is no source from which to obtain correct statistics relative to the subject. The only public document referring thereto is the annual report of the secretary of the national treasury, which cannot be exact.

According to such report for the year 1872 the amount of gold and silver exported was—

Per official reports.....	\$2, 205, 581
The secretary calculates as outside of official register.....	250, 000
But as much more may safely be added.....	250, 000

Making a total of 2, 705, 581

Which must have been mostly produce of the mines of the country.

According to the same report, there was coined at the three mints of Bogota, Medellin, and Papayan, in the same year—

Gold.....	\$536, 849
Silver.....	276, 697

Total coined..... 813, 546

Add twice the like sum for what was exported..... 1, 627, 092

Which would give..... 2, 440, 638

As total product of the mines of the country, which I think cannot be very far out of the way.

I am, sir, very respectfully, your obedient servant,

AUGS. I. HANABUGH,
United States Consul.

H. R. LINDERMAN,
Director of the Mint, Washington.

ECUADOR.

CONSULATE OF THE UNITED STATES,

Guayaquil, October 24, 1873.

SIR: In reply to your circular-letter of July 1, 1873, I have to state that the production of gold in Ecuador during the year 1872 was 1,169 ounces; silver, none produced.

No documents bearing on the subject are published.

I am, sir, your obedient servant,

CHAS. WEILE,

United States Consul.

H. R. LINDERMAN, Esq.,

Director of the Mint, Washington, D. C.

BRAZIL.

UNITED STATES CONSULATE, ST. CATHARINE'S, BRAZIL,

November 5, 1873.

SIR: In answer to your circular-letter No. 91, received at this consulate on the 4th instant, I have to inform you that there are no gold and silver produced from mines in this consular district at present. Gold exists, but in very small quantity, at a place called Itajahy.

I am, sir, your obedient servant,

WM. H. WELLINGTON,

United States Vice-Consul.

H. R. LINDERMAN, Esq.,

Director of the Mint, Washington.

SIAM.

[Translation.]

Chow Phya Bhaunwongse Maha Rosa Dlapoti, the Phra Keaug, minister of foreign affairs, to General F. W. Partridge, United States consul.

SIR: I have the honor to acknowledge the receipt of your dispatch, stating that the officer of the United States Treasury requests information in relation to the amount of the annual yield of gold and silver in the kingdom of Siam and its dependencies, and requesting me to communicate said information.

In reply, I beg to say, for your information, that silver-ores and native silver does not exist in the kingdom of Siam the same as silver-ores exist in foreign countries. There is some native gold to be found in the district of Stammert-Nopathun, on the west side of the gulf. There is a gold-mine there, where it is to be found, but no one dare to go and work it, on account of the deadly malaria. The only persons who work the mines are a few jungle-people, who dig and collect a little, and take it away for traffic in the purchase of food and clothing. It is not possible to specify the amount of the annual out-turn.

In the province of Packeinburg there is another gold-mine. The people formerly worked it somewhat, by digging a little, but it did not become a royal mine.

During the last year the government purchased a set of mining-machinery from Europe, and sent it out there to be put up to work the mines. The machinery to work the mines is in process of erection, and it is not yet known what the yield will amount to.

When the works are completed and in operation, whatever the annual yield may be, I will inform you.

FOREIGN OFFICE, Bangkok, January 6, 1874.

JAPAN.

DIRECTOR'S OFFICE,

The Mint, Osaka, June 29, 1874.

SIR: I have the honor to acknowledge the receipt of your letter of the 30th of March last, inclosing a copy of your very valuable and interesting report for the year ended June 30, 1873.

With reference to your inquiries as to the annual production of gold and silver in Japan, and as to the amount now in the country, the present approximate annual production may be taken as follows, viz: Gold, 7,291 troy-ounces; silver, 320,000 troy-ounces.

A more accurate estimate is now being perfected by the government, the result of which shall be duly transmitted.

The remaining question it is difficult to answer, as no reliable information can be obtained as to the quantities of old gold and silver coins, the bullion from which has not yet reached the mint for recoinage.

The total amount of gold struck into the new currency reaches \$48,463,580, and the silver \$13,330,436, to this date, but about 4,000,000 silver dollars have been sent out of the country.

I have the honor to be, sir, your obedient servant,

THOS. WM. KINDER,

Director of the Imperial Mint.

Hon. H. R. LINDERMAN,

Director of the United States Mint.

[Extract from a letter of June 29.]

* * * I now send you officially as to the uncoined gold and silver. It continues steadily to reach the mint from the various native refineries in quantities of about, gold, per month, \$396,000, and about, silver, per month, \$200,000. This no doubt will go on steadily per month possibly for years, as large values are believed to be concealed in the country districts, and only brought forward by degrees. * * *

THOS. W. KINDER,

Director of the Mint.

AUSTRALIA.

MINING DEPARTMENT,

Melbourne, December 3, 1873.

SIR: Your circular of July 1, 1873, requesting statistics of amount of gold and silver produced in this country, was received on the 17th ultimo. Not having the information at hand, I addressed a letter to R. Brough Smyth, esq., secretary for mines, whose answer, under date of yesterday, I inclose herewith.

By same mail, under separate cover, I will forward to you a document on the mineral statistics of Victoria.

I have the honor to be, sir, your obedient servant,

THOMAS ADAMSON,

United States Consul.

H. R. LINDERMAN, Esq.,

Director of the Mint, Treasury Department, Washington.

MINING DEPARTMENT,

Melbourne, December 3, 1873.

SIR: I have the honor to forward herewith statements, as complete as I can make them, relating to the production of gold and silver in the Australian colonies.

It would be necessary to make application to the governments of New South Wales, South Australia, and Queensland for statistics of the years 1868-'73.

I inclose for your further information a copy of the mineral statistics of Victoria for the year 1872.

I have the honor to be, sir, your most obedient servant,

R. BROUGH SMYTH,

Secretary for Mines.

THOMAS ADAMSON, Esq.,

United States Consul, &c., 24 Market Building, Collins Street.

Quantity of gold produced annually in Victoria from the date of the first discovery to the 31st December, 1872, and for the nine months ended 30th September, 1873.

Year.	Quantity exported.
	<i>Ounces.</i>
1851, for three months.....	145, 146
1852.....	2, 218, 782
1853.....	2, 676, 345
1854.....	2, 150, 730
1855.....	2, 751, 535
1856.....	2, 985, 991
1857.....	2, 762, 460
1858.....	2, 528, 478
1859.....	2, 280, 950
1860.....	2, 156, 660
1861.....	1, 967, 420
1862.....	1, 658, 207
1863.....	1, 626, 872
1864.....	1, 544, 694
1865.....	1, 543, 801
1866.....	1, 479, 194
1867.....	1, 433, 687
1868.....	1, 657, 498
1869.....	1, 340, 838
1870.....	1, 222, 798
1871.....	1, 355, 477
1872.....	1, 282, 521
1873, for nine months ending 30th September.....	925, 304

A.—Quantity of silver produced annually in Victoria from 1864 to the 31st December, 1872.

Year.	Quantity.
	<i>Oz. Dwt.</i>
1864.....	6, 786 4
1865.....	3, 379 0
1866.....	2, 348 2
1867.....	78 12
1868.....	5, 761 11
1869, 1870, 1871.....	-----
1872.....	850 0

Quantity of gold and silver produced annually in the other colonies of Australia.

Colony.	Years.	Gold.	Silver.
		<i>Ounces.</i>	
B.—New South Wales.....	1847-'67	7, 929, 688	-----
C.—South Australia.....	1857-'67	-----	-----
Queensland.....	1860-'67	128, 711	-----

A.—Silver-ore weighing 10 tons 6 cwt. was exported from Victoria.

B.—Silver-ore weighing 7 tons 16 cwt. 2 qrs. 5 lbs. was exported.

C.—Silver-ore weighing 1 cwt. was exported.

NEW SOUTH WALES.

THE TREASURY, NEW SOUTH WALES.

March 14, 1874.

SIR: I have the honor to acknowledge your letter of the 4th instant, inclosing a circular-letter from the Director of the Mint, at Washington, requesting information in relation to the annual production of gold and silver.

Having referred to the deputy master of the branch royal mint here, I have received from him a statement showing the annual production of gold in New South Wales for the past ten years, which the colonial treasurer begs you to transmit to Washington.

There are no means of ascertaining the annual production of silver in the colony.

I have the honor to be, sir, your obedient servant,

G. EAGAR.

The ACTING CONSUL for the United States.

Estimated produce of the gold-fields of New South Wales during the last ten years.

Year.	Quantity.	Value.
	<i>Ounces.</i>	<i>£ s. d.</i>
1864	340,337.64	1,303,156 4 3
1865	320,700.57	1,230,822 16 0
1866	291,587.71	1,121,465 0 3
1867	271,886.42	1,053,336 19 3
1868	255,662.66	994,573 12 10
1869	251,491.79	972,103 7 4
1870	240,858.11	926,492 16 8
1871	324,943.13	1,252,427 17 11
1872	425,363.91	1,641,150 4 11
1873	361,855.71	1,390,123 8 9
Total	3,084,687.65	11,885,562 8 2
Annual average.....	308,468.76	1,188,556 4 9

HONDURAS.

CONSULATE OF THE UNITED STATES,

Amapala, February 28, 1874.

SIR: I am in possession of your circular of July 1, 1873, which only reached me on the arrival of the last steamer, inquiring about the amounts of gold and silver produced by the mines of Honduras.

In answer. I beg to inform you that, on account of the continual revolutionary wars during the last three years, mining operations in Honduras have been nearly altogether suspended.

In 1871 the export of silver from this port amounted to very near \$400,000. Of gold, very little is produced; some of it wash-gold from rivers, and some produced from the mines by the rude processes and appliances of the natives. The whole quantum may eventually amount to about \$50,000.

The statistical accounts of the exportation are very incorrect, as precious metals pay 3 per centum of export-duty, and considerable portions of them are smuggled. No official reports of the production are kept, and owners of mines avoid saying the truth about the yield of their works in order to escape taxation and forced loans.

I am, sir, your very obedient servant,

GEO. A. K. MAXMÈS, *Consul.*

Hon. H. R. LINDERMAN,

Director of the Mint, Washington.

SYRIA.

UNITED STATES CONSULATE GENERAL AT BEIRÛT, SYRIA,

October 16, 1873.

SIR: In reply to your circular dated July 1, 1873, received October 6, 1873, through the Department of State. I have the honor to inform you that there are no gold or silver mines worked at present in Syria, and, therefore, I can furnish no statistics relating to the annual production of the said precious metals.

I should add that it has been reported that gold-dust is found in the streams flowing from the Lebanon Mountains, above Tripoli, but I have not seen any specimens. No gold or silver mines have been worked in this part of the world during the Christian era.

I am, sir, your obedient servant,

J. BALDWIN HAY,

Consul-General.

H. R. LINDERMAN, Esq.,

Director of the Mint, Washington.

MEXICO.

UNITED STATES CONSULATE,
Acapulco, October 30, 1873.

SIR: In compliance with your circular of July 1 ultimo, received by me on September 28 ultimo only, I took pains to procure the most reliable information on the mines of the State of Guerrero, which form part of this consular district, and having addressed Mr. Manuel Costioa Barries, a gentleman well informed on the subject, for this purpose, I received from him a letter, of which I beg leave to inclose copy.

The consular agency of Salinaberg and Tehuantepec informs me that on the isthmus, for the present, no mines are being worked.

Very respectfully,

JOHN A. SUTTER, JR.,
United States Consul.

Hon. H. R. LINDERMAN,
Director of the Mint, Treasury Department, Washington.

[Translation.]

IGNALA, October 10, 1873.

DEAR SIR: Until to-day I have not been able to give the proper reply to your interesting communication of the 29th ultimo relative to the two questions on the annual production of precious metals in your consular district, the State of Guerrero.

This portion of the republic, as you know yourself, is, without any doubt, the most favored portion of the Mexican soil, and, perhaps, of all America, as far as mineral wealth is concerned; but the want of security for human life, as well as for capital, is the cause that it remains untouched, and, for the present, without any value to the commerce and industry of this country and of the world at large.

The great mining-districts now known in Guerrero, in which work is either suspended or in utter decay, are the following: The first in rank is the district of Tasio, in which there are two hundred and six silver mines, each one known by its name. Then follow the mines of El Limori, in Tepecoacútleo; those of Huitsuro, of Buena Vista; Azulaques, in Teloloapan; Tepantitlan, Coronilla, Guadalupe, Espiritu Santo, Coahnayulla, San Viedas del Oro, (which latter are several of gold and silver;) those of El Puerta and the Esperanza, in Coyuna, with a number more it would be too long to enumerate; those of Totlalpan, Chilapa, and Hnautla, with the remark that all these names comprise mining-districts where are a number of mines, discovered by the Spaniards, and afterward abandoned, at the beginning of the war of independence in the year 1810, and never since worked with regularity.

Tasio, as aforesaid, is the most important mining-district in this state, and one of the principal ones in the republic, but its present decay has reached its highest degree. Its actual products do not exceed 8,000 mark per year, there having been a time when the Spaniards brought to light as much in one single week, which circumstance is proved by the archives of that place. In my opinion, the gold and silver produced by the State of Guerrero annually can be calculated, approximately, as follows:

	Mark, silver.
Tasio	8,000
Azulaques	150
Guadalupe	1,800
Tepantitlan	1,500
Coronilla	300
Espiritu Santo	5,000
Totlalpan	200
Coyuna	400
Chilapa and Ilapa	1,000
Huautla	3,000
Total	21,350

which, at \$9 per mark, amount to \$192,150. This is an extremely small amount, compared with what could be produced, but in these times I do not believe that one dollar more is produced.

The production of gold is still smaller, the mines producing the same being those of San Virolas del Oro, El Puerto, and Esperanza, which are worked by two companies formed in the city of Mexico three years ago, and have only commenced yielding metals a short time since. The product of San Virolas del Oro in the last five months amounts to \$10,000 gold, more or less. I know the production of El Puerto and Esperanza, so that I estimate the quantity of gold produced annually in the State of Guerrero to be \$50,000.

What is needed by the grand mining industry in Mexico for its growth and development,

astonishing the world with its great riches, are the following three things: 1st, guarantee to human life. 2d, security of capital. 3d, liberty to export and sell the precious metals in the best market without any impost whatever.

The government which can give to Mexico these three things, so easy for the civilization and actual progress of humanity, will bestow on her the greatest possible boon, &c.

MANUEL COSTINA BARRIO.

Mr. JOHN SUTTER, *Acapulco*.

NEW YORK, *October 5, 1874.*

SIR: I inclose to you estimates of the gold and silver product of the United States since 1848, and also some figures concerning the production of gold in Australia and New Zealand. The estimate of the gold product follows down to 1862, a table compiled by J. Arthur Phillips, and published in his book "Gold and Silver." From 1862 to 1866 the product of California is calculated by deduction from the express receipts of uncoined treasure in San Francisco, the receipts from Nevada, and adding two per cent. to the remainder. From 1866 to 1873 the products of gold are based on the reports of the Commissioner of Mining Statistics, the proportion of gold and silver being estimated as well as possible.

The statistics in silver production are taken from Whitney, Richthofen, the official reports of companies, and the express receipts. Two-thirds of the value of the Comstock product has been assumed to be silver, the remainder gold. The figures cannot claim a high degree of accuracy, but the totals of gold and silver are approximately correct.

Very respectfully,

R. W. RAYMOND,
United States Commissioner of Mining Statistics.

Hon. H. R. LINDERMAN,
Director of the Mint.

Estimate of gold product of the United States since 1847.

Year.	California.	Other States and Territories.	Total.
1848	\$10,000,000	.....	\$10,000,000
1849	40,000,000	.....	40,000,000
1850	50,000,000	.....	50,000,000
1851	55,000,000	.....	55,000,000
1852	60,000,000	.....	60,000,000
1853	65,000,000	.....	65,000,000
1854	60,000,000	.....	60,000,000
1855	55,000,000	.....	55,000,000
1856	55,000,000	.....	55,000,000
1857	55,000,000	.....	55,000,000
1858	50,000,000	.....	50,000,000
1859	50,000,000	.....	50,000,000
1860	45,000,000	\$1,000,000	46,000,000
1861	40,000,000	3,000,000	43,000,000
1862	34,700,000	4,500,000	39,200,000
1863	30,000,000	10,000,000	40,000,000
1864	26,600,000	19,500,000	46,100,000
1865	28,500,000	24,725,000	53,225,000
1866	25,500,000	28,000,000	53,500,000
1867	25,000,000	26,725,000	51,725,000
1868	22,000,000	26,000,000	48,000,000
1869	22,500,000	27,000,000	49,500,000
1870	25,000,000	25,000,000	50,000,000
1871	20,000,000	23,500,000	43,500,000
1872	19,000,000	17,000,000	36,000,000
1873	17,000,000	19,000,000	36,000,000
Total	985,800,000	254,950,000	1,240,750,000

Estimate of silver product of the United States.

From 1849 to 1853, \$50,000 per annum	\$500,000
1859	100,000
1860	150,000
1861	2,000,000
1862	4,500,000
1863	8,500,000
1864	11,000,000
1865	11,250,000
1866	10,000,000
1867	13,500,000
1868	12,000,000
1869	12,000,000
1870	16,000,000
1871	23,000,000
1872	28,750,000
1873	35,750,000
Total silver	189,000,000
Total gold	1,240,750,000
Graud total, 1849 to 1873, inclusive	2,429,750,000

Product of Australia.

The extent of the Australian production is indicated by the following table from the official "Statistical abstract of the several colonial and other possessions of the United Kingdom," giving the value of the exports of bullion and coin from New South Wales and Victoria from the opening of the mines. It should be observed, however, that it does not represent the exact production of each colony. The coin was issued from the branch of the royal mint at Sydney, New South Wales. A branch mint was established at Melbourne, Victoria, in 1872.

Years.	New South Wales.		Victoria.	
	Exclusive of coin.	Coin.	Exclusive of coin.	Coin.
1851	£470,836	.....	£438,777	.....
1852	2,660,945	.....	6,435,728	.....
1853	1,781,172	.....	8,644,529	.....
1854	773,209	.....	8,225,550	.....
1855	209,250	.....	10,904,150	.....
1856	138,007	£18,144	11,943,458	.....
1857	187,249	914,199	10,987,591	£951,856
1858	98,430	1,411,251	10,107,836	605,673
1859	215,941	1,488,833	9,122,037	1,304,992
1860	298,668	1,579,920	8,624,860	565,430
1861	289,937	1,720,326	7,869,758	1,210,828
1862	517,105	2,467,164	6,685,192	918,999
1863	587,920	1,774,134	6,520,957	1,169,471
1864	304,955	2,647,516	6,206,237	1,029,872
1865	441,006	2,325,844	6,190,317	809,269
1866	531,983	2,815,437	5,909,987	961,493
1867	544,661	2,041,383	5,738,993	671,936
1868	382,616	1,771,005	7,843,197	507,662
1869	578,260	2,184,612	6,804,179	684,819
1870	672,254	1,206,569	6,119,782	577,840
1871	601,250	1,724,088	6,590,962	347,513
1872	731,120	1,656,131	5,197,340	.....
	13,016,774	29,746,556	162,841,417	12,317,653
	\$63,346,130	\$144,761,614	\$792,467,755	\$59,843,838

The exports from New Zealand began in 1857, and to the beginning of 1872 had amounted to £24,492,149. They increased from £40,084 in 1857 to £2,897,412 in 1864, then gradually decreased till 1870, when they amounted to £2,163,910, but in 1871 increased again to £2,788,368.

NEW YORK, *October 31, 1874.*

SIR: I have just received from Montana and Idaho the estimates which enable me to form an approximate idea of the production of gold and silver during the year ended June 30 1874. It is as follows:

Arizona	\$500,000
California	18,000,000
Colorado	4,400,000
Idaho	2,200,000
Montana	4,500,000
Nevada	40,000,000
New Mexico	500,000
Oregon and Washington	1,500,000
Wyoming	50,000
Utah	3,400,000
Other sources	250,000
Total	75,300,000

This exceeds the product for the calendar year 1873 by \$3,600,000, due to the increased production of the Comstock and Eureka, chiefly.

Colorado has also increased.

Very respectfully,

R. W. RAYMOND,
Commissioner Mining Statistics.

H. R. LINDERMAN, Esq.,
Director of the Mint.

Receipts of uncoined treasure at San Francisco, by Wells, Fargo & Co., for the year ended June 30, 1874.

<i>Source.</i>	<i>Silver bullion.</i>	<i>Gold-dust and bullion.</i>
Northern and southern mines	\$16,653,257	\$7,791,487
Northern coast		1,028,529
Southern coast	9,435	231,934
Total	16,662,692	9,052,009
		16,662,692
		25,714,701

	<i>Coin.</i>
Northern and southern mines	\$7,668,985
Northern coast	749,562
Southern coast	500,751
Total coin from interior to San Francisco	8,917,298

Coin from San Francisco to the interior \$17,914,464

Treasure exports from San Francisco, exclusive of shipments through United States mail.

New York	\$13,984,526
England	384,156
China	8,697,837
Japan	1,248,346
Other countries	1,408,808
Total	25,723,673

Receipts of gold bullion at San Francisco Assaying and Refining Works for the fiscal years 1872-'73 and 1873-'74, prepared by Louis A. Garnett, San Francisco Assaying and Refining Works.

	1872-'73.	1873-'74.
Refined gold deposited at mint	\$17,552,390 52	\$21,602,351 21
Refined gold exported	4,922,795 31	3,403,062 14
	22,475,185 83	25,005,413 35

Whence received.

Unparted gold received from mint	\$7,554,772 82	\$9,039,146 42
Unparted gold received from other domestic sources.....	10,824,226 14	9,442,505 49
Gold parted from silver	2,479,876 76	5,800,831 87
Foreign gold.....	1,616,310 11	722,929 57
	<hr/> 22,475,185 83	<hr/> 25,005,413 35
Gold coined	\$17,552,390 52	\$21,602,351 21
Fine gold exported	4,922,795 31	3,403,062 14
Crude gold exported	3,230,274 00	985,731 82
	<hr/> 25,705,459 83	<hr/> 25,991,145 17
Deduct gold parted and foreign gold.....	4,096,186 87	6,523,761 44
	<hr/> 21,609,272 96	<hr/> 19,467,383 73
Decline in production of native gold.....		2,141,889 23

Production of gold and silver in the State of Nevada for the calendar year 1873 and fiscal year 1873-'74, prepared by Louis A. Garnett, San Francisco Assaying and Refining Works.

CALENDAR YEAR 1873.

	Whole State.	Storey County, (Comstock.)
1st quarter	\$6,760,934 73	\$5,054,903 02
2d quarter	10,034,081 79	6,832,815 52
3d quarter	7,540,029 40	4,616,650 16
4th quarter	7,325,574 23	5,251,846 76
	<hr/> 31,660,620 15	<hr/> 21,756,215 40

FISCAL YEAR 1873-'74.

Quarter ended September 30, 1873	7,540,029 40	4,616,650 16
Quarter ended December 31, 1873.....	7,325,574 23	5,251,846 70
Quarter ended March 31, 1874	7,312,836 76	5,759,919 55
Quarter ended June 30, 1874	7,760,651 38	5,971,459 19
	<hr/> 29,939,091 77	<hr/> 21,599,875 60

No. 4.

Valuation of pound sterling.—Report of Senate Finance Committee; Treasury Department Circular No. 115.

Quotation of American securities in London.—Letter of Secretary Richardson to Hon. A. G. Cattell; correspondence between Hon. A. G. Cattell and London Stock Exchange.

Spectroscopic assay.—Report of assayer mint United States, Philadelphia; report of assayer United States-assay office, New York.

Trade-dollar.—Letter from superintendent mint, San Francisco.

Value of Austrian florin.—Letter to Hon. J. F. Hartley, Assistant Secretary.

Degrees of fineness to which assays of gold are reported at mint, San Francisco.

VALUATION OF POUND STERLING.

Report of Committee on Finance, United States Senate.

The Committee on Finance, being instructed by the following Senate resolution, to wit:

“Resolved, That the Committee on Finance be instructed to inquire whether the valuation of the sovereign or pound sterling of Great Britain at the custom-houses of the United States, and in the settlements of accounts between the two countries, under existing laws, corresponds with its true or intrinsic value, as expressed in the money of account of the United States, and report by bill or otherwise,”

have had the same under consideration, and submit the following report thereon:

Gold was first made the standard measure of value in Great Britain in the year 1816, by a provision of law, as follows:

“That gold coins shall be in future the sole standard measure of value and legal-tender of payment, without limitation of amount, and that silver coins shall be legal-tender for the limited amount of forty shillings only at any one time.”

At the same time a new coinage of twenty-shilling pieces, called sovereigns, was directed in the following words :

"There shall be nine hundred and thirty-four sovereigns and one ten-shilling piece contained in twenty pounds weight troy of standard gold, of the fineness, at the trial of the same, of twenty-two carats fine gold and two carats of alloy in the pound weight troy."

These provisions have been re-enacted by the English coinage act of April 4, 1870.

The sovereign of Great Britain now in use was first minted in the year 1817, under the act to which reference has been made.

Since nine hundred and thirty-four sovereigns and one ten-shilling piece ($934\frac{1}{2}$ sovereigns) are contained in twenty pounds weight troy, standard gold, there must be forty-six and twenty-nine fortieths ($46\frac{29}{40}$) sovereigns (or £46 14s. 6d.) in one pound weight troy of standard gold. One ounce weight will contain one-twelfth as many sovereigns, or £3 17s. 10 $\frac{1}{2}$ d., or $934\frac{1}{2}$ pence.

Since one sovereign contains two hundred and forty (240) pence, the weight of a sovereign will be $\frac{240}{934\frac{1}{2}}$ of an ounce weight troy, or of its equivalent, or 430 grains troy, which is 123.2744 + grains weight troy: that is, one sovereign of standard gold weighs that number of grains, but one-twelfth is alloy. Therefore, the pure gold in a sovereign weighs 113.0016 + grains troy.

The standard gold dollar of the United States weighs 25.8 grains troy, whereof one-tenth is alloy. Therefore, the pure gold in the standard dollar weighs 23.22 grains troy.

As 23.22 grains troy is the weight of the pure gold in the standard dollar, and 113.0016 + grains troy the weight of the pure gold in the standard sovereign, the quotient resulting from dividing the second number by the first is the value of the pure gold in the standard sovereign, as expressed in dollars and cents, which gives us \$1.86656 +. This is the true or intrinsic value of the sovereign or pound sterling, as expressed in the standard dollar of the United States at the present time.

By an act of Congress approved July 27, 1842, it is provided that "in all payments by or to the Treasury, whether made here or in foreign countries, when it becomes necessary to compute the value of the pound sterling, it shall be deemed equal to \$4.84; and that the same rule shall be applied in appraising merchandise imported when the value is by the invoice in pounds sterling."

Under this act the invariable practice of the accounting officers of the United States Treasury Department has been to adjust accounts when made out in the moneys of the United States on the basis of \$4.84 to the sovereign or pound sterling, and the same standard has been employed in appraising merchandise imported when the value is by the invoice in pounds sterling.

In this valuation (\$4.84) of the pound sterling, the standard aimed at was its average value as then in circulation in the United States. Coin in use soon falls below the standard value by wear and abrasion. This we shall call the congressional valuation. There is still another valuation for the sovereign or pound sterling. This is its commercial valuation or its technical par, or par of exchange between Great Britain and the United States, as it is called, of \$4.44 4-9. This is the valuation of the sovereign given in 1789 by the Congress of the United States.

Here we find the valuation differs widely from the true or intrinsic value, as well as the congressional value, to explain which it will be necessary to glance at the history of the coinage laws of Great Britain and this country.

In the year 1601 the British standard of silver coin was established, by which 444 grains of troy pure silver were rated at 5s. 2d., or 62 pence.

In the year 1707, in the reign of Queen Anne, under an act for ascertaining the rates of foreign coins in Her Majesty's plantations in America, the Spanish dollar, or, more strictly speaking, "Mexico pieces" and "pillar pieces," was rated at 4s. 6d., or 54 pence, that being the value, according to the standard of 1601, of 386 $\frac{2}{3}$ grains troy of pure silver contained in that coin.

Now, this Spanish dollar, containing 386 $\frac{2}{3}$ grains troy of pure silver, as tested more than a century and a half ago, long before the gold dollar of the United States was dreamed of, even long before the United States themselves were thought of, when the moneys of Her Majesty's plantations in America were those of the mother country, when the test was made under an act to ascertain the rates of *foreign* coins in said plantations, this dollar is the dollar which we have inherited as the commercial dollar, and which hurdens us with a technical par. But this foreign dollar, this Spanish dollar of 1707, has undergone changes of value as the decades passed by.

In the year 1772 the pure silver in the Spanish dollar was reduced to 377 $\frac{1}{4}$ grains troy, a diminution of 9 $\frac{1}{4}$ grains pure silver.

In the year 1785 the congress of the confederation adopted the *dollar* as the monetary unit, and in the following year it was decided that it should contain 375 $\frac{64}{100}$ grains troy of pure silver. This is still less than the Spanish dollar of 1772, and in fact was based on the average value of the Spanish dollars then in circulation, which were, as all coin much used must be, slightly below the standard value, even when the coinage is honestly conducted.

In the year 1792 Congress adopted a money of account, with the dollar as the unit, to be represented by a coin containing $371\frac{1}{3}$ grains troy pure silver, which is the present quantity of pure silver in our dollar.

Thus we see the quantity of pure silver in both the Spanish dollar and that of the United States has been constantly diminishing, without, however, holding, or pretending to hold, any fixed proportion with the value of silver bullion or with any changes made in the coins of Great Britain.

And if anything further was needed to make this valuation of the dollar a thing of the past, a pure fiction so far as British money is concerned, we had it when, in 1816, Great Britain, by act of Parliament, changed its standard from silver to gold.

The simple statement of the fact shows that in treating of the commercial dollar, with its valuation of 54 pence, and of the sovereign, with its value of $\$4.44\frac{2}{3}$ derived therefrom, we are dealing not with realities, but only with the names of things which have long since ceased to exist.

It is not strange, therefore, that those who are not dealers in money should be puzzled by our system of exchange with Great Britain, and that they are filled with forebodings of financial disaster when viewing the quotations of our hoids abroad, and when being daily informed that the rate of exchange is always against us.

But how is this *par of exchange*, $\$4.44\frac{2}{3}$, of course invariable, and which controls the *exchange*, which is always against us, as ascertained? It is as follows:

The real dollar of 1707 and the fictitious dollar of to-day, being one and the same in value, are rated at 4s. 6d., or 54 pence. A sovereign contains 240 pence, or four and four-ninths of these fictitious dollars of 54 pence each. But this *par of exchange*, or technical *par*, whether expressed in the terms of the money of account of the United States ($\$4.44\frac{2}{3}$) or in those of Great Britain, (54 pence,) differs from the true *par* in just so much as the value of this fictitious dollar differs from the true or intrinsic value of the dollar of our present money of account. The true or intrinsic value of the gold dollar of the United States is $49\frac{5}{16}$ pence, very nearly, which we ascertain as follows: The sovereign contains, as has already been shown, 113.0016+ grains weight troy of pure gold, and our gold dollar 23.22 grains weight troy pure gold, and as there are 240 pence in the sovereign there must be in the dollar $23.22 \div 113.0016+$ thereof, or $49\frac{5}{16}$ pence.

Now the difference between this real dollar ($49\frac{5}{16}$ pence) and the fictitious dollar (54 pence) is $9\frac{1}{2}$ per cent., very nearly, of the real dollar. Nine and one-half per cent. of $49\frac{5}{16}$ added thereto makes 54 to within a small fraction. It may be asked whence this $9\frac{1}{2}$ per cent.? This, too, is a fiction. We have the fictitious dollar called the *par of exchange*, and in comparing it to the real dollar the fiction of the *difference in the exchange* comes in in the form of this percentage. Did our real dollar possess any other value the difference in the exchange would be different; but as it is, $49\frac{5}{16}$ and 54 result in this difference of $9\frac{1}{2}$ per cent. of the first. A second fiction is thus resorted to to correct the evils of the first.

As the *par of exchange*, being the dollar, expressed in the terms of the money of account of Great Britain, is 54 pence, the *par* expressed in the terms of the money of account of the United States will be ascertained by dividing 240 pence by 54, which gives us $4.44\frac{2}{3}$, the number of such dollars in the sovereign. The sovereign contains of real dollars $4.8665+$. Although $9\frac{1}{2}$ per cent. of the real dollar was added thereto to give us the fictitious or *par* dollar, we now find that this percentage will have to be taken off the fictitious sovereign and added thereto to give us the real sovereign, which is what should be expected, inasmuch as the same number, 240, was the dividend in both cases.

Consequently we should expect to find, as we do find, that the *technical par*, $\$4.44\frac{2}{3}$, increased by $9\frac{1}{2}$ per cent., of itself will give us the real *par*, or the valuation of the sovereign, as expressed in our money, $\$4.8665$, to within a small fraction.

We see that the fictitious sovereign is less than the real one by .42.2+ cents, and, as a matter of course, when the exchange between the two countries is at a true *par*, a certain percentage must be added to the false standard short in its measure to make it reach the true standard, and so long as such a false standard is used, so long will the exchange be quoted against us, even though the true exchange be in our favor.

This *par of exchange* exists between no other two nations. It is entirely arbitrary; it is unnecessary; it is annoying; it is absurd.

For the better understanding of this point, we will examine the values given one of our bonds for a thousand dollars ($\$1,000$) in the London market.

As the true value of the sovereign is $\$4.86656+$, there must be in the one-thousand-dollar ($\$1,000$) bond 205.484 such sovereigns, or $\pounds 205$ 9s. 8 $\frac{1}{2}$ d.; but if we assume the value of the sovereign to be $\$4.44\frac{2}{3}$, the *par of exchange*, there will be of such sovereigns in the $\$1,000$ bond 225, ($\pounds 225$), by which it is seen that the $\$1,000$ bond is given a valuation which is some $\pounds 19\frac{1}{2}$ more than its true or intrinsic value, and of course it cannot be quoted at *par*, unless its premium is sufficient to equal or exceed the fictitious increase of value thus given to it.

The $\$1,000$ bond will be at a true *par* whenever it is worth $\pounds 205.484$, but it is quoted below *par* because it is not worth $\pounds 225$. Thus it is seen that our bonds are quoted below *par* when, in point of fact, they are at or above *par*.

Frequently State and corporation bonds sent abroad are expressed in pounds, shillings, and pence, or in the dollar at its true value or nearly so, and such bonds are quoted above

the United States bonds, though the latter are quoted higher at home, and are in reality more valuable.

An examination of the disposition of our securities abroad will show that the *inconvenience* of this system of exchange is the least of evils attending it.

By what has been stated it will be seen that the true or intrinsic value of the sovereign of Great Britain, as expressed in the money of account of the United States, is \$4.86656, that the congressional valuation is \$1.84, and that the commercial valuation, known as the *par of exchange* or *technical par*, is \$1.44 $\frac{1}{4}$.

The first is the value of the pure gold in the sovereign, as expressed in dollars and cents; and as a measure for the comparison of the moneys of the two countries is sought, that which will give the true value of the pure gold in their standard coins would seem to fill the requisite conditions.

The second is the valuation given by Congress, it being the average value of those actually tested in 1842. It is to be observed that it was the average worn or abraded British coin with which our standard coin was compared. Would it not be wiser to compare our standard coin with the British standard coin? If the British worn or abraded coin is taken as a standard, ought not our own worn and abraded coin to be compared with it?

The inconvenience, not to say the evils, of the fictitious sovereign, based on the Spanish dollar of the seventeenth century, and known as the *par of exchange*, is recognized by all, and cannot be too quickly remedied.

It is the opinion of the committee that such a valuation should not be recognized by any of the Departments of the Government, and that they should use every means in their power, abroad as well as at home, to attain a system of exchange based on true or intrinsic values.

Circular No. 116.

TREASURY DEPARTMENT.

Washington, D. C., September 17, 1873.

The Secretary of the Treasury invites the attention of importers, exchange-dealers, and the public generally, to "An act to establish the custom-house value of the sovereign or pound sterling of Great Britain, and to fix the par of exchange," passed March 3, 1873, which is as follows, viz:

"§ 1. That the value of foreign coin as expressed in the money of account of the United States shall be that of the pure metal of such coin of standard value; and the values of the standard coins in circulation, of the various nations of the world, shall be estimated annually by the Director of the Mint, and be proclaimed on the first day of January by the Secretary of the Treasury.

"§ 2. That in all payments by or to the Treasury, whether made here or in foreign countries, where it becomes necessary to compute the value of the sovereign or pound sterling, it shall be deemed equal to four dollars eighty-six cents and six and one half mills; and the same rule shall be applied in appraising merchandise imported, where the value is by invoice in sovereigns or pounds sterling, and in the construction of contracts payable in sovereigns or pounds sterling; and this valuation shall be the par of exchange between Great Britain and the United States; and all contracts made after the first day of January, 1874, based on an assumed par of exchange with Great Britain of fifty-four pence to the dollar, or four dollars forty-four and four-ninths cents to the sovereign or pound sterling, shall be null and void.

"§ 3. That all acts and parts of acts inconsistent with these provisions be, and the same are hereby, repealed."

So much of this act as relates to the custom-house and other Government valuations of the pound sterling has already been considered by the Department, and a table has been issued for the guidance of public officers engaged in such computations. That branch of the act, therefore, calls for no further notice.

The present circular concerns itself more particularly with the effect of the law on transactions of *exchange* with Great Britain, and the alterations which will become necessary by its peremptory prohibition, after the close of the present year, of all contracts based on the erroneous but customary *par* with that country.

By a usage, dating back to an early period in our colonial history, the dollar has been rated as equivalent to 54 pence sterling; the pound, therefore, at \$4.44 $\frac{1}{4}$, or £9 = \$40. The dollar, which was the original subject of comparison, was the old Spanish silver dollar, or piece of eight reals, and the computation at the time was approximately true, as compared with the British silver money. In all transactions of exchange, involving the dollar and British money, the *par* was, therefore, assumed at 54 pence to the dollar, any differences from this *par* being attributable to premium or discount. The practice thus begun has been continued through all the changes, and they are considerable, which have affected the coins current in this country and in Great Britain during nearly two centuries; for the British standard is now *gold*, and the Spanish dollar no longer circulates with us, but our unitary dollar is a *gold* coin, worth nearly 9 per cent. less than a dollar of 54 pence.

The error, which thus stands at the basis, is corrected by expedients which become the

source of new errors, by which the public is led astray, and even the Government credit affected.

Thus, the true par value of the pound sterling being \$4.8665, and the fictitious par at the assumed rate of 54 pence to the dollar being \$4.444, a dealer selling one pound of exchange at the true par will charge a nominal *premium* of $9\frac{1}{2}$ per cent., since $9\frac{1}{2}$ per cent. on \$4.444 gives \$4.866. In appearance, exchange is heavily *against* this country, when, in truth, there is neither premium nor discount.

Again, if a bond of the United States is sold at actual par in London, the *quotation* of the bond would be $91\frac{5}{8}$ per cent. only. For the real par, say, of a one-thousand-dollar bond (at \$4.8665 per £) being (stated decimally) £205.486, and the nominal par at 54 pence per dollar being £225, the London dealer by quoting $91\frac{5}{8}$ per cent. on the latter sum arrives at the true or nearly true par value.

Thus, through a pure fiction, retained by usage only, and not by any law, exchange with Great Britain appears permanently *against* the United States, while our bonds are quoted at a fixed *discount* of nearly $8\frac{3}{4}$ per cent. below their real value.

The remedy for such anomalies is the abandonment of the false par or valuation of the moneys of the United States in British money, and it is to this object that the law referred to is directed.

It is to be observed that while the act positively prohibits contracts based upon the false par, it prescribes no rule for the quotation of sterling exchange, or for our securities sold for sterling money. As to the latter class of transactions, since they occur in Great Britain only, the subject is of course beyond any direct control of Congress: as to the former, a few remarks will be appropriate.

In quoting exchange on foreign countries, it has never been the practice, except in dealings with Great Britain, to assume a par, upon which a percentage is rated. The universal rule, except in this case, is to quote the money of our country against the money of other countries. Thus, on France, and the franc countries, exchange is quoted in francs and centimes to the dollar; on Prussia, cents to the thaler; on Frankfort, cents to the florin, and so on. In reforming our practice with Great Britain, it will be judicious to adopt the same method, quoting exchange either in dollars and cents to the pound sterling or in pence and fractions to the dollar. In the Spanish American states and in China it is customary to quote exchange on Great Britain in pence to the dollar, but for the United States the Secretary would recommend quotations in dollars and cents to the pound sterling, for the following reasons: 1st. The variation in quoting one cent to the pound is near enough to denote the customary variations in exchange in the market, so that the use of fractions in stating the prices will be unnecessary. One cent variation corresponds very nearly to one-quarter per cent. in the exchange upon the fictitious par. 2d. As the dollar of the United States is a gold coin, and of the South American states and China a silver coin, a distinction in the unit for quoting exchange is for this reason desirable; since it would thus be understood, without further explanation, that a quotation of dollars and cents to the pound, referred to a *gold* dollar, and of pence and fractions to the dollar, to a *silver* dollar.

The law, while prescribing the close of the present year as the term for the discontinuance of the old rating of exchange, does not prohibit, but rather invites, an earlier change in the practice. In order to avoid the inconveniences of a postponement to the last moment, the Secretary would recommend that the change be entered upon at once. With a view to facilitate this, he appends hereto a series of tables, which he trusts will be found to embody useful information and aid in passing from an erroneous to a correct system.

Table A.—This has been already referred to as facilitating the valuation of sterling money for the computation of duties at the custom-houses.

Table B.—This table shows the value of the pound sterling in dollars and decimals corresponding to exchange quoted according to the method at present in use, namely, in percentages of the fictitious par. The object of this table is to guide those accustomed to think of rates in the present way toward the corresponding or approximate rates quoted in dollars and cents.

Table C.—This is a comparative table, showing what equivalent expressions correspond to exchange quoted in dollars and cents to the pound. The object is the same, namely, to make those accustomed to old ways see their relation to the new.

Table D.—This is a comparative table of a corresponding character, only based on the supposition of exchange quoted in pence and fractions to the dollar.

Table E.—This table exhibits the errors of the London mode of quoting United States securities in percentages. It shows the real or true percentage corresponding to the fictitious percentage based upon the false par of 54 pence to the dollar.

In connection with this last table, the Secretary would remark that, while only the action of the London Stock Exchange can bring a remedy for this unfair method of quotation, the dealers in securities and the press of our own country may, in a measure, correct the evil by converting the false quotations into the true, for which object the table will be found convenient.

Table F.—This is designed to facilitate calculations in decimals of a pound sterling. In transactions of sterling exchange, it will be convenient to calculate decimally. The table

furnishes a ready means of stating shillings and pence in decimals of a pound, and, on the other hand, converting the latter into shillings and pence.

Finally, the Secretary would urge upon those in a position to guide in introducing the changes demanded by the law, the importance of acting promptly, so that by conference and interchange of views, an agreement may be reached as to the most convenient time and manner of effecting them.

WM. A. RICHARDSON,
Secretary of the Treasury.

A.—Table for the reduction of sterling money of Great Britain to United States gold coin, under act approved March 3, 1873, fixing the value of the £ sterling at \$4.8665. (Prepared by the First Comptroller of the Treasury, April 1, 1873.)

	0	1	2	3	4	5	6	7	8	9
1	4.8665	53.5315	58.398	63.2645	68.131	72.9975	77.864	82.7305	87.597	92.4635
2	9.733	102.1965	107.063	111.9295	116.796	121.6625	126.529	131.3955	136.262	141.1285
3	14.5995	150.8615	155.728	160.5945	165.461	170.3275	175.194	180.0605	184.927	189.7935
4	19.466	199.5265	204.393	209.2595	214.126	218.9925	223.859	228.7255	233.592	238.4585
5	24.3325	248.1915	253.058	257.9245	262.791	267.6575	272.524	277.3905	282.257	287.1235
6	29.199	296.8565	301.723	306.5895	311.456	316.3225	321.189	326.0555	330.922	335.7885
7	34.0655	345.5215	350.388	355.2545	360.121	364.9875	369.854	374.7205	379.587	384.4535
8	38.932	394.1865	399.053	403.9195	408.786	413.6525	418.519	423.3855	428.252	433.1185
9	43.7985	442.8515	447.718	452.5845	457.451	462.3175	467.184	472.0505	476.917	481.7835

One shilling equals $24\frac{53}{100}$ cents. One penny equals $2\frac{13}{100}$ cents.

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0		.24	.48	.73	.97	1.21	1.46	1.70	1.94	2.19	2.43	2.67	2.92	3.16	3.40	3.65	3.89	4.13	4.38	4.62
1	.02	.26	.50	.75	.99	1.23	1.48	1.72	1.96	2.21	2.45	2.69	2.94	3.18	3.42	3.67	3.91	4.15	4.40	4.64
2	.04	.28	.52	.77	1.01	1.25	1.50	1.74	1.98	2.23	2.47	2.71	2.96	3.20	3.44	3.69	3.93	4.17	4.42	4.66
3	.06	.30	.54	.79	1.03	1.27	1.52	1.76	2.00	2.25	2.49	2.73	2.98	3.22	3.46	3.71	3.95	4.19	4.44	4.68
4	.08	.32	.56	.81	1.05	1.29	1.54	1.78	2.02	2.27	2.51	2.75	3.00	3.24	3.48	3.73	3.97	4.21	4.46	4.70
5	.10	.34	.58	.83	1.07	1.31	1.56	1.80	2.04	2.29	2.53	2.77	3.02	3.26	3.50	3.75	3.99	4.23	4.48	4.72
6	.12	.36	.60	.85	1.09	1.33	1.58	1.82	2.06	2.31	2.55	2.79	3.04	3.28	3.52	3.77	4.01	4.25	4.50	4.74
7	.14	.38	.62	.87	1.11	1.35	1.60	1.84	2.08	2.33	2.57	2.81	3.06	3.30	3.54	3.79	4.03	4.27	4.52	4.76
8	.16	.40	.64	.89	1.13	1.37	1.62	1.86	2.10	2.35	2.59	2.83	3.08	3.32	3.56	3.81	4.05	4.29	4.54	4.78
9	.18	.42	.66	.91	1.15	1.39	1.64	1.88	2.12	2.37	2.61	2.85	3.10	3.34	3.58	3.83	4.07	4.31	4.56	4.80
10	.20	.44	.68	.93	1.17	1.41	1.66	1.90	2.14	2.39	2.63	2.87	3.12	3.36	3.60	3.85	4.09	4.33	4.58	4.82
11	.22	.46	.70	.95	1.19	1.43	1.68	1.92	2.16	2.41	2.65	2.89	3.14	3.38	3.62	3.87	4.11	4.35	4.60	4.84

NOTE.—To find the value of any number of pounds represented by one figure, find the figure in the left-hand margin of the upper table, and its value will appear in the column adjoining, opposite that figure. To find the value when expressed by two figures, look for the *tens* in the left-hand column, and for the *units* in the top margin, and the value will be shown in the place where the two columns meet; thus, the value of £57 is \$277.3905. To find the value of £576, look for 57, as before, and move the decimal point one place to the right, and it shows \$2,773.905; then add £6, as already shown, \$29.199, and it gives the sum of \$2,803.104.

The lower table shows the value of every combination of shillings and pence less than £1; the upper margin representing the shillings, and the left-hand margin the pence. Thus, to find the value of 17 shillings and 6 pence, follow the column 17 downward until it meets the left-hand column opposite 6, and it shows \$4.25. By this method any number of pounds, shillings, and pence can be reduced to United States gold quickly and accurately.

B.—Table showing the value of the pound sterling in dollars and decimals, corresponding to rates of exchange quoted in percentages of the fictitious par.

Percent- age.	0	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
105	4.66, 6..	4.67, 2..	4.67, 7..	4.68, 3..	4.68, 8..	4.69, 4..	4.70	4.70, 5..
106	4.71, 1..	4.71, 6..	4.72, 2..	4.72, 7..	4.73, 3..	4.73, 8..	4.74, 4..	4.75
107	4.75, 5..	4.76, 1..	4.76, 6..	4.77, 2..	4.77, 7..	4.78, 3..	4.78, 8..	4.79, 4..
108	4.80	4.80, 5..	4.81, 1..	4.81, 6..	4.82, 2..	4.82, 7..	4.83, 3..	4.83, 8..
109	4.84, 4..	4.85	4.85, 5..	4.86, 1..	4.86, 6..	4.87, 2..	4.87, 7..	4.88, 3..
110	4.88, 8..	4.89, 4..	4.90	4.90, 5..	4.91, 1..	4.91, 6..	4.92, 2..	4.92, 7..
111	4.93, 3..	4.93, 8..	4.94, 4..	4.95	4.95, 5..	4.96, 1..	4.96, 6..	4.97, 2..
112	4.97, 7..	4.98, 3..	4.98, 8..	4.99, 4..	5.00	5.00, 5..	5.01, 1..	5.01, 6..
113	5.02, 2..	5.02, 7..	5.03, 3..	5.03, 8..	5.04, 4..	5.05	5.05, 5..	5.06, 1..
114	5.06, 6..	5.07, 2..	5.07, 7..	5.08, 3..	5.08, 8..	5.09, 4..	5.10	5.10, 5..
115	5.11, 1..	5.11, 6..	5.12, 2..	5.12, 7..	5.13, 3..	5.13, 8..	5.14, 4..	5.15
116	5.15, 5..	5.16, 1..	5.16, 6..	5.17, 2..	5.17, 7..	5.18, 3..	5.18, 8..	5.19, 4..
117	5.20	5.20, 5..	5.21, 1..	5.21, 6..	5.22, 2..	5.22, 7..	5.23, 3..	5.23, 8..
118	5.24, 4..	5.25	5.25, 5..	5.26, 1..	5.26, 6..	5.27, 2..	5.27, 7..	5.28, 3..
119	5.28, 8..	5.29, 4..	5.30	5.30, 5..	5.31, 1..	5.31, 6..	5.32, 2..	5.32, 7..
120	5.33, 3..	5.33, 8..	5.34, 4..	5.35	5.35, 5..	5.36, 1..	5.36, 6..	5.37, 2..
121	5.37, 7..	5.38, 3..	5.38, 8..	5.39, 4..	5.40	5.40, 5..	5.41, 1..	5.41, 6..
122	5.42, 2..	5.42, 7..	5.43, 3..	5.43, 8..	5.44, 4..	5.45	5.45, 5..	5.46, 1..
123	5.46, 6..	5.47, 2..	5.47, 7..	5.48, 3..	5.48, 8..	5.49, 4..	5.50	5.50, 5..
124	5.51, 1..	5.51, 6..	5.52, 2..	5.52, 7..	5.53, 3..	5.53, 8..	5.54, 4..	5.55
125	5.55, 5..	5.56, 1..	5.56, 6..	5.57, 2..	5.57, 7..	5.58, 3..	5.58, 8..	5.59, 4..
126	5.60	5.60, 5..	5.61, 1..	5.61, 6..	5.62, 2..	5.62, 7..	5.63, 3..	5.63, 8..
127	5.64, 4..	5.65	5.65, 5..	5.66, 1..	5.66, 6..	5.67, 2..	5.67, 7..	5.68, 3..
128	5.68, 8..	5.69, 4..	5.70	5.70, 5..	5.71, 1..	5.71, 6..	5.72, 2..	5.72, 7..
129	5.73, 3..	5.73, 8..	5.74, 4..	5.75	5.75, 5..	5.76, 1..	5.76, 6..	5.77, 2..
130	5.77, 7..	5.78, 3..	5.78, 8..	5.79, 4..	5.80	5.80, 5..	5.81, 1..	5.81, 6..

NOTE.—Column 1 shows the even percentages; column 2, the value of dollars to the pound at that rate, and the subsequent columns the values for successive increases of one-eighth per cent. in the rate. The dots after the mill figure in the decimals show that it is continued or circulating, or the mill may stand for the numerator of a fraction of which the denominator is 9. For example, opposite 109 and under $\frac{1}{8}$ is the value of the pound at $109\frac{1}{8}$ per cent., viz, \$4.86,6666, or \$4.86 6-9.

C.—Comparative table, showing the approximate equivalents, expressed by different methods corresponding to exchange quoted in dollars and cents to the pound sterling.

Dollars and cents to the pound sterling.	Pence and decimals to the dollar.	Percentage of the true or mint par.	Percentage of the fic- titious par.	Dollars and cents to the pound sterling.	Pence and decimals to the dollar.	Percentage of the true or mint par.	Percentage of the fic- titious par.
4.61	52.06	94.7	103.7	4.86	49.39	99.9	109.3
4.62	51.95	94.9	103.9	4.87	49.29	100.1	109.6
4.63	51.84	95.1	104.2	4.88	49.18	100.3	109.8
4.64	51.72	95.3	104.4	4.89	49.08	100.5	110.0
4.65	51.61	95.5	104.6	4.90	48.98	100.7	110.2
4.66	51.50	95.7	104.8	4.91	48.88	100.9	110.5
4.67	51.39	95.9	105.1	4.92	48.78	101.1	110.7
4.68	51.28	96.1	105.3	4.93	48.69	101.3	110.9
4.69	51.17	96.3	105.5	4.94	48.59	101.5	111.1
4.70	51.06	96.6	105.7	4.95	48.49	101.7	111.4
4.71	50.96	96.8	106.0	4.96	48.38	101.9	111.6
4.72	50.86	97.0	106.2	4.97	48.29	102.1	111.8
4.73	50.74	97.2	106.4	4.98	48.20	102.3	112.0
4.74	50.63	97.4	106.6	4.99	48.10	102.5	112.3
4.75	50.53	97.6	106.9	5.00	48.00	102.7	112.5
4.76	50.42	97.8	107.1	5.01	47.91	102.9	112.7
4.77	50.32	98.0	107.3	5.02	47.81	103.1	112.9
4.78	50.21	98.2	107.5	5.03	47.72	103.3	113.2
4.79	50.10	98.4	107.8	5.04	47.62	103.5	113.4
4.80	50.00	98.6	108.0	5.05	47.53	103.7	113.6
4.81	49.90	98.8	108.2	5.06	47.44	103.9	113.8
4.82	49.80	99.0	108.4	5.07	47.34	104.2	114.1
4.83	49.70	99.2	108.7	5.08	47.25	104.4	114.3
4.84	49.60	99.4	108.9	5.09	47.15	104.6	114.5
4.85	49.49	99.6	109.1	5.10	47.06	104.8	114.7

NOTE.—The expressions on the same line are equivalent, or practically so. Thus, exchange quoted at \$4.89 per pound sterling corresponds to 49.8-100 pence to the dollar, or to the 100.5 per cent. of the true par, (that is, half per cent. premium,) or to 110 per cent. of the old or fictitious par, (that is, falsely, 10 per cent. premium.) The true par corresponds to \$4.86.65 to the pound, equivalent to 49.5-16 pence to the dollar, and to $109\frac{1}{2}$ fictitious percentage, and £15 equals \$73.

D.—Comparative table showing the approximate equivalents, expressed by different methods, corresponding to exchange quoted in pence and eighths to the dollar.

Pence to the dollar.	Dollars and decimals to pound sterling.	Percentage of the true or mint par.	Percentage of the fictitious par.	Pence to the dollar.	Dollars and decimals to pound sterling.	Percentage of the true or mint par.	Percentage of the fictitious par.
47	5.10, 6	104.9	114.9	50	4.89, 0	98.6	108.0
47 $\frac{1}{2}$	5.09, 3	104.7	114.6	50 $\frac{1}{2}$	4.78, 8	98.4	107.7
47 $\frac{1}{4}$	5.08, 0	104.4	114.3	50 $\frac{3}{4}$	4.77, 6	98.1	107.5
47 $\frac{3}{8}$	5.06, 6	104.1	114.0	50 $\frac{5}{8}$	4.76, 5	97.9	107.2
47 $\frac{1}{2}$	5.05, 3	103.8	113.7	50 $\frac{7}{8}$	4.75, 3	97.7	106.9
47 $\frac{3}{4}$	5.04, 0	103.6	113.4	50 $\frac{9}{8}$	4.74, 1	97.4	106.7
47 $\frac{7}{8}$	5.02, 6	103.3	113.1	50 $\frac{11}{8}$	4.72, 9	97.2	106.4
47 $\frac{1}{2}$	5.01, 3	103.0	112.8	50 $\frac{13}{8}$	4.71, 8	96.9	106.1
48	5.00, 1	102.7	112.5	51	4.70, 6	96.7	105.9
48 $\frac{1}{2}$	4.98, 7	102.5	112.2	51 $\frac{1}{2}$	4.69, 5	96.5	105.6
48 $\frac{1}{4}$	4.97, 4	102.2	111.9	51 $\frac{3}{4}$	4.68, 3	96.2	105.4
48 $\frac{3}{8}$	4.96, 2	102.0	111.6	51 $\frac{5}{8}$	4.67, 2	96.0	105.1
48 $\frac{1}{2}$	4.94, 9	101.7	111.4	51 $\frac{7}{8}$	4.66, 1	95.8	104.9
48 $\frac{3}{4}$	4.93, 6	101.4	111.1	51 $\frac{9}{8}$	4.64, 9	95.5	104.6
48 $\frac{7}{8}$	4.92, 3	101.2	110.8	51 $\frac{11}{8}$	4.63, 8	95.3	104.3
48 $\frac{1}{2}$	4.91, 1	100.9	110.5	51 $\frac{13}{8}$	4.62, 7	95.1	104.1
49	4.89, 8	100.6	110.2	52	4.61, 5	94.8	103.8
49 $\frac{1}{2}$	4.88, 6	100.4	109.9	52 $\frac{1}{2}$	4.60, 4	94.6	103.6
49 $\frac{1}{4}$	4.87, 3	100.1	109.7	52 $\frac{3}{4}$	4.59, 4	94.4	103.4
49 $\frac{3}{8}$	4.86, 1	99.9	109.4	52 $\frac{5}{8}$	4.58, 3	94.2	103.1
49 $\frac{1}{2}$	4.84, 9	99.6	109.1	52 $\frac{7}{8}$	4.57, 2	93.9	102.9
49 $\frac{3}{4}$	4.83, 7	99.4	108.8	52 $\frac{9}{8}$	4.56, 1	93.7	102.6
49 $\frac{7}{8}$	4.82, 4	99.1	108.5	52 $\frac{11}{8}$	4.55, 0	93.5	102.4
49 $\frac{1}{2}$	4.81, 2	98.9	108.3	52 $\frac{13}{8}$	4.53, 9	93.3	102.1

NOTE.—The expressions on the same line are equivalent, or practically so. Thus, exchange quoted at 49 $\frac{1}{4}$ pence per dollar corresponds to \$4.87.3 to the pound, or to 100.1 of the true par, (that is, one-tenth of one per cent. premium,) or to 109.7 of the old or fictitious par, (that is, falsely, 9.7 per cent. premium.) The true par corresponds to \$4.86.65 to the pound, or 49 5-16 pence to the dollar, equivalent to 109 $\frac{1}{4}$ per cent. fictitious percentage; and therefore £45 are equal to \$73.

E.—Table showing the true percentage, corresponding to the quotation in London, of United States bonds in fictitious percentage.

Percent- age.	0	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
80	87.60	87.71	87.87	88.01	88.15	88.28	88.42	88.56
81	88.69	88.83	88.97	89.11	89.24	89.38	89.52	89.65
82	89.79	89.93	90.06	90.20	90.34	90.47	90.61	90.75
83	90.88	91.02	91.16	91.30	91.43	91.57	91.71	91.84
84	91.98	92.12	92.25	92.39	92.53	92.66	92.80	92.94
85	93.07	93.21	93.35	93.49	93.62	93.76	93.90	94.03
86	94.17	94.31	94.44	94.58	94.72	94.85	94.99	95.13
87	95.26	95.40	95.54	95.68	95.81	95.95	96.09	96.22
88	96.36	96.50	96.63	96.77	96.91	97.04	97.18	97.32
89	97.45	97.59	97.73	97.87	98.00	98.14	98.28	98.41
90	98.55	98.69	98.82	98.96	99.10	99.23	99.37	99.51
91	99.64	99.78	99.92	100.06	100.19	100.33	100.47	100.60
92	100.74	100.88	101.01	101.15	101.29	101.42	101.56	101.70
93	101.83	101.97	102.11	102.25	102.38	102.52	102.66	102.79
94	102.93	103.07	103.20	103.34	103.48	103.61	103.75	103.89
95	104.02	104.16	104.30	104.44	104.57	104.71	104.85	104.98
96	105.12	105.26	105.39	105.53	105.67	105.80	105.94	106.08
97	106.21	106.35	106.49	106.63	106.76	106.90	107.04	107.17
98	107.31	107.45	107.58	107.72	107.86	107.99	108.13	108.27
99	108.40	108.54	108.68	108.82	108.95	109.09	109.23	109.36
100	109.50	109.64	109.77	109.91	110.05	110.18	110.32	110.46

NOTE.—Column 1 shows the fictitious percentage, expressed without fractions; column 2, the true percentage corresponding thereto based upon the real par as calculated on the units of coinage in Great Britain and the United States. The subsequent columns indicate the true percentage corresponding to successive increases of one eighth per cent. in the fictitious rate. For example, if United States new 5s are quoted in London at 91 $\frac{1}{8}$, opposite 91 and under $\frac{1}{8}$ will be found 99.92 per cent., or eight hundredths of one per cent. below the true par. Comparing the coins of the two countries as to their pure gold, £15=\$73, the true par, whereas by the false par £9=\$40.

F.—Table for the conversion of shillings, pence, and farthings into decimals of a pound, and vice versa.

Shillings.	Decimals, £.	Pence.	0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
1.....	0.050	1.....	0.004	0.005	0.006	0.007
2.....	.100	2.....	.008	.009	.010	.011
3.....	.150	3.....	.012	.014	.015	.016
4.....	.200	4.....	.017	.018	.019	.020
5.....	.250	5.....	.021	.022	.023	.024
6.....	.300	6.....	.025	.026	.027	.028
7.....	.350	7.....	.029	.030	.031	.032
8.....	.400	8.....	.033	.034	.035	.036
9.....	.450	9.....	.037	.039	.040	.041
10.....	.500	10.....	.042	.043	.044	.045
11.....	.550	11.....	.046	.047	.048	.049
12.....	.600					
13.....	.650					
14.....	.700					
15.....	.750					
16.....	.800					
17.....	.850					
18.....	.900					
19.....	.950					

NOTE.—In using the table, first separate the decimal representing shillings, which can be generally done by inspection, since each shilling is exactly £0.050. Any decimal less than .050 will represent pence, &c. Examples: Required s. and d. equivalent to £0.929. Since .950 = 19s. and .039 = 9 $\frac{1}{4}$ d. Answer, £0.19.9 $\frac{1}{4}$. Required decimal corresponding to 8s. 4 $\frac{1}{2}$ d. Since 8s. = .400 and 4 $\frac{1}{2}$ d. = .019. Answer, £0.419.

QUOTATION OF AMERICAN SECURITIES IN LONDON.

Secretary of the Treasury, W. A. Richardson, to Hon. A. G. Cattell.

TREASURY DEPARTMENT, October 9, 1873.

SIR: I inclose for your information a circular lately issued by the Department on the subject of the so-called pound sterling act of March 3, 1873.

You are of course familiar with the anomalies which attend the transactions of exchange between the United States and Great Britain, growing out of the erroneous rating, by a usage of very long standing, of the dollar in sterling money. The act in question is mainly directed to correcting this anomaly, so far as our own citizens are concerned.

By reference to the circular you will perceive that the Department has considered at some detail the causes and the inconveniences of the present method of computing such exchange, and suggested the remedy, which seems most appropriate.

Referring you more particularly to the circular, I will here recapitulate, in somewhat varied form, the facts which have justified the passage of this act.

In all transactions of exchange between Great Britain and the United States the dollar of the latter is assumed to be of the value of fifty-four (54) pence. This is taken as the par, and any variations from that assumed par are stated in differences of exchange or percentage. This rating of the dollar was originally of a very different coin, namely, the old Spanish or Spanish-American dollar. As far back as the time of Queen Anne, while Sir Isaac Newton was master of the British mint, he reported the Spanish dollar or piece of eight reals as equivalent to fifty-four (54) pence in British silver. This Spanish silver dollar being the most customary coin of the American colonies of Great Britain, the Queen issued her proclamation of this assay for the information and guidance of her American and British subjects. Assuming the assay to have been correct, of course it only applied in a comparison between the coin named, viz, the Spanish dollar and British silver. Since that time the Spanish dollar of the standard then fixed has ceased to be coined, and has disappeared from circulation. The silver coin with which it was compared is also no longer issued at the former standard. Gold coin only is a legal-tender in Great Britain, and in the United States the gold dollar has replaced the Spanish dollar of the North American colonies. Yet the anomaly remains, that amid all these changes, coins having disappeared and standards changed, the dollar is still rated at fifty-four (54) pence.

As a matter of fact, the dollar (of gold) is equal to 49 $\frac{5}{16}$ pence in British gold coin, and not fifty-four (54) pence. It takes \$1.09 $\frac{1}{2}$ to equal 54 pence, and the pound sterling is equal to \$4.8665, and not \$4.4444, as is stated under the fictitious rating.

Consequently, when exchange with Great Britain is at *real* par, it is *quoted* at about 9 $\frac{1}{4}$ per cent. premium, that being the difference between the gold dollar of the United States and the obsolete silver dollar of fifty-four (54) pence.

As a further consequence, dollar bonds or securities of the United States, if sold in London at *real* par, would be *quoted* at about 91 $\frac{5}{16}$ per cent. (decimally, 91.3) of the fictitious par.

For since the dollar in the bond is assumed to be 54 pence, $91\frac{5}{16}$ per cent. on that value gives about $49\frac{7}{8}$ pence, the true value of our gold dollar.

The fiction which assumes the dollar as equal to 54 pence was long since corrected by the United States as to all ratings at the custom-houses and in the Treasury, but it has been continued by usage among the dealers in exchange. It was well understood that, as a consequence, the quotations on London gave an entirely erroneous impression, as exchange *appeared* to be against the United States when *really* in its favor, and a correction of the practice has been for some time desired.

The act of Congress referred to is directed toward this end. It absolutely prohibits, after the close of the present year, any transactions based upon the fictitious par, and declares the true par of the pound sterling to be \$4.8665.

The Department is well assured that the recommendation which it has made in the circular on the subject will be at an early day adopted, and that exchange on Great Britain will be quoted, not in percentage, either on a real or fictitious par, but in dollars and cents to the pound sterling, in this conforming to the practice as to exchange with all other countries.

It is greatly to be desired that the change about to be made by the United States should also be adopted in Great Britain, and the Department now invites your attention to the subject, in the hope that you may be able to further the accomplishment of that end.

Your intelligence, and the special relation which you now hold to the Department, point you out as the proper person to represent its views on the matter.

You will observe that the object sought is not to change any law of Great Britain, but simply a usage of its exchange and stock dealers. Whatever is to be accomplished must, therefore, be by influencing the views of that class. If the subject were brought to the attention of a few of the more intelligent and energetic among them, I am not without hope that modification so reasonable and convenient can be effected without much opposition.

As far as Great Britain is concerned, I remind you that the changes which should be made relate to two points:

1st. As to exchange on the United States. The adoption of the practice of quoting in dollars and cents (and half cents if needful) to the pound sterling will be so convenient, that I anticipate little difficulty in securing harmony on this between the two countries.

2d. As to the quotation of United States dollar securities: these, as stated, are quoted on a fictitious par of 54 pence to the dollar, and the effect is that our securities *appear* to be about $8\frac{3}{4}$ per cent. (decimally, 8.7) less valuable than they are. This causes, in this country, some natural annoyance, and indeed often leads to false conclusions. If it should be found that there is a disposition to correct the error, there may be, nevertheless, some doubt as to the most convenient mode.

The Department understands that it is a usage of the London Stock Exchange, as to other securities than those of the United States, to establish a par as between sterling money and the foreign coin in which the bond is stated, and then to quote the foreign bond by a percentage. Thus, assuming 25 francs as the par of the £, then a French 3 per cent. bond being quoted at 60, a bond of 1,000 francs (which at par is £40) would realize £24. And if the par so fixed is correct, or approximately correct, the plan has some advantage, since the percentage affords a convenient scale of comparison. The objection, so far as relates to the par fixed for United States money, is that it is so very wide of the fact. That par assumes 54 pence to the dollar, or £9=\$40. The true par, almost exact, comparing the pure gold in the coins of the two countries, is £15=\$73; and if the practice of the London dealers were so far changed as to fix that par, no objection could be made. But it appears to the Department that any attempt to fix a par as between the dissimilar coinages of foreign countries is erroneous in principle and likely to cause inconvenience. Par should apply to similar coinages, and premium or discount to exchanges rated in such money. If applied to dissimilar coinages, alterations in the standards of one or the other country, or both, will alter the par, and if no corresponding change is made in the usage, will introduce just such anomalies as we are now considering. It would seem, on the whole, preferable that foreign securities, like foreign exchange, should be quoted money against money. Thus, if a United States 5-20 bond, or exchange on the United States, were quoted at \$1.50, then a bond or a bill of \$1,000 would cost $\frac{1000}{4.80}$ £; that is, £208 6s. 8d.

I may add, on this point, that some bonds of the United States are issued in sterling money, in which case, of course, percentage is the proper manner of quotation; others again in currency and sterling at an assumed relation, sometimes \$5 to £1; sometimes 50 pence to the dollar. In these cases the percentages apply to this fixed sterling valuation of the bond. But since the valuation is incorrect, it would seem preferable in these cases also to quote either in percentages on a true par or in dollars to the pound.

You will please report, from time to time, such action as you may take in forwarding the business now committed to you, and the results which you may be able to accomplish.

Very respectfully,

WM. A. RICHARDSON,
Secretary

Hon. A. G. CATTELL,
London, England.

Hon. A. G. Cattell to W. A. Richardson, Secretary.

LONDON, ENGLAND, *December 6, 1873.*

SIR: I have heretofore acknowledged the receipt of your communication of October 9, inclosing the circular of the Department (No. 110) on the subject of the so-called pound sterling act of March 3, 1873, and informed you that the subject was receiving my attention.

In accordance with the suggestion contained in your letter, I sought and obtained interviews with several of the leading members of the London Stock Exchange, in which the subject was discussed in all its bearings. As might naturally be expected, I found differences of opinion among those I consulted, and although all admitted that the rating of our dollar at 4s. 6d. was absurdly erroneous, some contended that it had existed so long, and was so well understood by all intelligent people, that no change was necessary or desirable.

At the suggestion of some of the friends of the measure, in order to disseminate information on the subject, I had 150 copies of the Department circular struck off here for distribution among the members of the stock exchange.

When the proper time arrived I brought the matter officially before the committee of the stock exchange, having first seen several of the members personally, by addressing them a letter, and inclosing your letter of October 9, with a number of the Department circular.

I send herewith copies of the correspondence between the committee and myself, from which you will see they have adopted 4s. as the equivalent of our dollar in their quotations for American securities.

You will observe by the correspondence that I struggled for a rate approximating more nearly the actual relative value of the two coinages, and in my personal interviews with members of the committee, as well as with other leading gentlemen of the stock exchange, I pressed this point with earnestness and zeal; but the argument of convenience of calculation seemed to override every other consideration, and as my province was simply to present and urge the adoption of the views of the Department, with no power to do more than present the arguments in its favor, there seems to be nothing left for me to do in the premises but to report my action, which I trust will meet your approval.

Very respectfully, your obedient servant,

ALEXANDER G. CATTELL.

Hon. WILLIAM A. RICHARDSON,
Secretary of the Treasury.

Mr. Cattell to Mr. Levien.

NEW COURT, SAINT SWITHIN'S LANE,
London, England, November 10, 1873.

DEAR SIR: I have received from the Secretary of the Treasury of the United States a communication touching the erroneous method now in use in London of quoting the prices of American securities and the par of exchange between the United States and Great Britain, and calling my attention to a law passed by Congress at its last session intended to correct the existing errors so far as our own country is concerned.

Holding the situation of confidential agent of the United States Treasury Department, and being located in London, the Secretary has charged me with presenting to the London Stock Exchange the object of the law alluded to and the changes likely to be produced by it in the method of quotations at the stock boards in our own country, in the hope that the proposed changes in the direction of correctness and simplicity may so commend themselves to the London Stock Exchange as to induce uniformity of action in the two countries.

I am advised that your committee is the proper channel through which to communicate with the stock exchange, and as the letter of the Secretary of the Treasury and the circular issued by the Department on the subject cover so completely the whole ground, I beg to inclose them for your information as to the views of the Treasury Department.

I am sure a careful perusal of the Secretary's argument must satisfy you that the erroneous methods now in use are calculated to mystify and mislead those who deal in American securities or in exchange between the two countries, and that a change so desirable as that proposed would be for the interest and convenience of all engaged in commercial and financial operations between the United States and Great Britain.

If any point should arise requiring explanation, and your committee desire a conference, I shall be most happy to meet them at any time that would suit their convenience.

I also inclose two letters from the Director of the Mint, which may be interesting to you, and will thank you to return them and the Secretary's letter to me when you are through with them.

Hoping that the subject will receive your kind consideration, and that I shall have the pleasure of receiving a favorable report from you,

I have the honor to be, yours, very truly,

ALEX. G. CATTELL,
Agent United States Treasury Department.

FRANCIS LEVIEN, Esq.,
Secretary Stock Exchange, London.

Mr. Levien to Mr. Cattell.

COMMITTEE-ROOM, STOCK EXCHANGE,
London, November 20, 1873.

SIR: I am directed to express the thanks of the committee of the stock exchange for the interesting written documents transmitted to them in explanation of the law passed in the United States for the substitution of a real par of exchange for the fictitious one of 4s. 6d. per dollar.

Although the law does not necessarily affect transactions in American stocks entered into in this country, the committee felt it incumbent upon them to consider how far it might be desirable to seize the opportunity of fixing a conventional rate which more nearly approximated to the real par now fixed, and would afford greater facilities for adjusting the immense transactions in American stocks that now take place in the London market.

After a full consideration of the whole case, and bearing in mind that only a small portion of the transactions referred to involve an operation in exchange, and that that exchange is generally effected out of our market, the committee have decided, as the course most convenient to the public, to adopt the fixed rate of 4s. to the dollar, and \$5 to the pound sterling, as applicable to all business entered into in the London market in securities expressed in the money of the United States of America.

I return the papers you were so good as to furnish; and I have the honor to be, sir, your obedient servant,

FRANCIS LEVIEN,
Secretary.

Hon. A. G. CATTELL, &c.

Mr. Cattell to Mr. Levien.

OFFICE OF THE FUNDED LOAN,
London, November 25, 1873.

SIR: I have the honor to acknowledge receipt of your courteous letter of the 20th instant, returning the documents touching the question of the quotation of American funds, which I had the pleasure of transmitting to you, and informing me of the action of the committee of the stock exchange in the premises.

I beg you will convey to the committee my thanks for their prompt consideration of the subject, as well as my gratification at the disposition shown to meet the wishes of the Government of the United States.

The adoption of the fixed rate of 4s. to the dollar instead of the obsolete and strikingly erroneous rate of 4s. 6d. is a most decided improvement, and perhaps it may seem captious and ungenerous not to be content therewith. I trust, however, that the committee will bear with me if I venture the suggestion that in making a change, which in all probability will endure for all time, every consideration seems to me in favor of as near an approach to accuracy as can be had, consistent with the reasonable convenience of calculation.

The Government of the United States would, if it had the power to choose, for the sake of exactness, avoid altogether the arbitrary method of fixing a par between two dissimilar coinages, and would have American securities quoted as they propose quotations for exchange, money against money. For instance, if a 5-20 United States bond or bill of exchange was quoted at \$4.80, then a bond or bill for \$1,000 would cost $\frac{1,000}{4.80}$ £, or £208 6s. 8d.

This plan, however, I understand would not be acceptable to the stock exchange, and therefore the only method of improvement left open is that suggested by your committee of a fixed rate in pence for our dollar nearly approaching actual value.

The documents I had the honor to hand you show that the value of the pure gold in the American dollar, as compared with the pure gold in the legal pound sterling, is $49\frac{1}{2}$ pence, (very nearly.) To state the relative value accurately, \$1 is equal to £0.2054838. The true par, (almost exact,) comparing the pure gold in the coin of the two countries, is £15 = \$73. The Government of the United States would be pleased if this actual relative value of the coin of the two countries could be established as the fixed rate in making quotations of American securities expressed in our money. But there seems to be a strong objection in the mind of the British public to the admission of the awkward fraction of $\frac{2}{5}$ pence, because of the inconvenience of calculation. Indeed, I understand that it was chiefly for the sake of this convenience of calculation that your committee were led to the adoption of 4s. as the equivalent of the dollar. Conceding the convenience of dropping the fraction, the advantage of accuracy is so great, to my mind, as to induce me to earnestly urge your committee to again consider the propriety of adopting 49d. instead of 48d.

By the old rating of 54d. our dollar was overvalued 8.7 per cent., and by the proposed rate of 48d. it will be undervalued about 2.5 per cent., consequently American funds actually at par will appear by the quotations based on this rate to be about 2.5 per cent. premium.

This, if it were true, would be very satisfactory, but is not so satisfactory, simply because it is *not true*.

Until recently in our own country the dollar has been, as here, rated as equivalent to 54*d*. sterling. The pound sterling has therefore been rated as equal to \$4.4444. When Congress, at its last session, passed a law intended to correct this error, it did not seek to fix a convenient figure for calculation at the sacrifice of accuracy, but fixed the value of the pound sterling at \$4.86665, its exact actual and legal relation to our coin.

The immense transactions at the London Stock Exchange in American securities, and the constantly increasing volume of this business, appear to me to make it most desirable that the quotations shall express as nearly as possible the actual value of such securities in the coin of your country, and that the sacrifice of a reasonably convenient rate, approximating to accuracy, for one some 2.5 per cent. in error, simply for the sake of some slight convenience in calculation, would be a grave error.

Of course, I need not tell you that whatever rate is fixed, complete and perfect tables will soon appear calculated for the new rates as they now are for the old, which will be just as easy and simple to use, whether made at 48*d*. or 49*d*. to the dollar.

Renewing my thanks for the interest your committee has taken in the matter, and with the hope that they will pardon any seeming intrusion of my views upon them,

I am, with sincere respect, very truly, your obedient servant,

ALEX. G. CATTELL.

Mr. FRANCIS LEVIEN,
Secretary London Stock Exchange.

Mr. Levien to Mr. Cattell.

COMMITTEE ROOM, STOCK EXCHANGE,
London, December 4, 1873.

SIR: I have this day laid before my committee your letter to me of the 25th ultimo, and I have conveyed to them your explanation of the circumstances under which its delivery has been delayed.

In reply I am instructed to point out, that as all the points to which you refer received the fullest consideration when the resolution adopting 4*s*. for the dollar as the basis for settlement in the stock exchange of all transactions in United States securities was confirmed, the committee are unable to re-open the question.

I have the honor to be, sir, your obedient servant,

FRANCIS LEVIEN,
Secretary.

Hon. A. G. CATTELL,
Sec., &c., &c.

SPECTROSCOPIC ASSAY.

Report of William E. Dubois, esq., assayer of the Mint of the United States at Philadelphia, on spectroscopic assay.

You have been fully informed of the experiments lately made in this department of the Mint as to the practicability of assaying by the spectroscope. (I use the name of this instrument to stand for the whole apparatus of spectrum analysis.) The results obtained are so remarkable that it might be well to present them in the annual report in a shape suited to intelligent readers generally, and divested as far as possible of technicalities and minute details. It does not belong exclusively to the chemist and spectroscopist to know whether there is a new power developed of determining almost instantly whether a given substance contains gold or silver or other valuable metal, and in what proportion. The multitude of correspondents who are continually sending us mineral specimens would, no doubt, consider this subject as of the first consequence, and such a power most desirable.

It is hardly necessary or proper to say anything in an elementary way about the spectrum. Every one who has seen the effect produced by the passage of a ray of atmospheric light through a prism will understand the basis of this operation. He there sees the white light of the sun *analyzed*, or divided into a succession of beautiful colors.

But there are other kinds of light, and those we have now to do with are such as proceed from metals brought to a state of vapor by intense heat. Every metal converted into a luminous gas gives out its peculiar light, as is shown by passing the ray through a prism or series of prisms, and observing the effects by the aid of a magnifying power.

These results, so varied and surprising, cannot here be dwelt upon further than to say that they give bright lines or bands, crossing the field of vision at definite places, as meas-

ured by a micrometric scale, which forms a necessary part of the apparatus. In taking an observation of such lines three conditions are looked for—position, color, and number. Thus, the vapor of gold will show four principal lines in certain positions—red, green, blue, and extreme violet; silver, two green lines; copper, three green lines; and so of others.

Although it was ascertained as early as 1835 that the spectra produced from the different metals were dissimilar, it is only within a few years that these have been definitely mapped and systematized. When brought to this atomic test the traces of metals appear, even when they are in extremely small degree, far smaller than any ordinary assay can detect.

It was reasonable to expect, therefore, that we had here the basis of a vastly improved method of assay, at least as to the amount of time required to make it; and it was as reasonable to suppose that a small proportion would show faintly and a large proportion largely, and that these diversities might be graduated and brought to an arithmetical scale, just as we can measure degrees of light and heat.

To settle these questions one way or the other, or, at any rate, to throw some light upon the subject, one of the assistants in this department, Mr. Alex. E. Outerbridge, jr., who has given much attention to spectroscopic study, was requested to take it in hand, and, if possible, conduct the inquiry to a satisfactory conclusion.

The mode of procedure, the apparatus employed, (an important part of which was contrived and made in the Mint,) and the results of these investigations, have been minutely set forth in the last number (July, 1874) of the proceedings of the American Philosophical Society. It is only necessary to say here that the chief dependence in making these assays was upon the *length* of the characteristic lines, the comparisons being made with alloys of known fineness. Also, that in order to obtain the instant vaporization of the metals, resort was had to the most powerful electrical apparatus. And here we might pause for a moment to express admiration of the progress of science and art, by which a master power of nature is so controlled and directed that the stubborn metals and metalloids, which resist even a blast furnace, are converted into thin air without the intervening fluid stage. The quantity, however, as we shall see, is very small at a time. I will now quote a paragraph from the report:

"With one electrode pure gold and the other 933 fine, (that is 1,000 against 938,) the difference between the respective spectra was, of course, very marked, the copper lines appearing in the one and not in the other. Substituting for the pure gold the alloy 876, the difference was still very marked, for although both gold and copper appeared in each, the copper lines were much brighter and somewhat longer in the baser alloy, while the gold lines were brighter and longer in the finer. But on comparing the alloys 876 and 883, (reducing the variation to seven-thousandths,) I was both surprised and disappointed to find the visible difference of results but slightly appreciable, and the same with other alloys of equal or less variation of fineness. A variation of one thousandth required an effort of the imagination as well as of the eye to detect any difference whatever."

So far, then, the spectroscopic assay fell far behind the ordinary method, which carries the result to one-tenth of one-thousandth.

I need not take time or room in suggesting reason for this, because in the progress of the work two other discoveries were made, either of which presents such a barrier as must arrest even the most enthusiastic.

The first of these it will require a little close attention to understand and appreciate, especially from those who are not assayers or chemists, and chiefly because of the extension of figures. Still I think it will repay any one to look into it.

When we have occasion to assay ores or sweeps, we take (after intimate mixture of the powdered substance) five ounces at the most, more commonly the "assay ton," a little less than one ounce, which has been so well adapted by Professor Chandler, of Columbia College, and is neatly got up with its divisions by Messrs. Becker. By taking such quantities, where there is much earthy or mineral matter to be got rid of, we are enabled to carry the analysis to a very small proportion. This is requisite, because a gold or silver ore or sweep yielding thirty or forty dollars a ton will pay.

Here, to enliven the subject a little, I will mention that my predecessor, Mr. Eckfeldt, who sometimes amused himself by carrying results to the utmost refinement, in one case of a galena ore (from New Britain, Pa.) took five ounces, and having cleared it so as to get a bead of silver, dissolved that bead and obtained from it a speck of gold, which in comparison of the original weight, was as one part in 6,220,000; in another way of stating, about 10 cents to the ton.

But where the substance to be tried for silver or gold is simply metallic, it is only necessary to take a few grains. To take a homely illustration, a small taste of butter will give the true character of a whole pound or firkin. And so the normal weight now generally adopted for a gold assay is the denigram, not quite eight grains. This stands for 1,000, and there is a series of lesser weights down to one-thousandth or degree. This degree is again subdivided into tenths, which are habitually used but not generally reported. In silver assays the normal weight is the grain, similarly subdivided.

I take the liberty, for the present purpose, to use the word *degrees* instead of *thousandths* to make a clear statement. (The centigrade thermometer is divided into hundredths, but it prevents confusion to call them *degrees*, and so the jewelers say 18 *carats*, not eighteen twenty-fourths.)

Now, returning to the spectroscope, the electric flash which passes between the two electrodes is accompanied by an extremely small amount of vaporized gold or gold-alloy.

This amount was critically ascertained in these experiments, and of course it constitutes the amount used in the assay. It is about the one-millionth part of a grain, which is inconceivably less than the least speck that would be visible to the unaided eye.

But, then, to cite the report again, "It is necessary to determine gold assays to (one-tenth of a degree, or) $\frac{1}{10000}$ part of the normal assay-weight; and it is not conceivable that a discrimination to the ten-thousandth part of the millionth part of a grain is practically possible."

Every assay usually represents several ounces, often thousands of ounces. To make a uniform mixture of this mass, it is melted and stirred while fluid. This is a mechanical operation, which answers the purpose if carefully done; but in rare cases the metal is found to be not well mixed, varying two or three degrees or more, and has to go to the melting-pot again. How unlikely—impossible, we may say—to have it so mixed to the last atom as to be fit for the assay above mentioned.

But then we are met by another obstruction equally insurmountable. It is briefly shown in the following extract: "Although less than $\frac{1}{50000}$ of a milligram of gold will show a spectrum when the gold is pure, yet when it is present in an alloy a comparatively large proportion of gold will not be indicated at all by the spectroscope. In a slip composed of 708 degrees silver, 254 copper, and 38 gold, (making 1,000 together,) the spectrum of gold is not visible. In fact, in an alloy of gold and copper containing 200 to 250 parts (degrees) of gold the gold spectrum is barely visible. But 10 degrees of copper in gold would show the copper spectrum. Likewise, in an alloy of nickel and copper containing 20 per cent. (200 degrees) of nickel its spectrum is not visible."

Now, after such accounts of the extreme sensibility of this operation, we are taken aback at finding such large proportions of metal completely hidden, and we naturally look for a reason. It appears to come to this, that "where two metals are present the electric spark will, to some extent, choose for its vehicle the one which is most rapidly vaporized," and thus a surprising paradox may be resolved. But we are left with the assurance that this mode of assay cannot be trusted, for assays are almost always made upon alloys.

But if we have been disappointed in finding a new and instant mode of assay, a very important contribution has been made to spectroscopic study.

In conclusion, it is worth while to consider whether, if this mode of assay had proved satisfactory, it would really be a gain over our present methods, and in doing this we shall let the reader a little further into what used to be our secrets, but are so no longer.

First, as for any greater delicacy or exactness, we are now fully equal to any capabilities of melting and refining. When a hundred or thousand ounces are run down in the melting-pot and well stirred, and when we have ladled or poured out at the right juncture, and have followed certain precautions about casting and cooling, we have done our best to make a homogeneous alloy. No one pretends that this is ever an absolute and perfect mixture.

It might be so at those few points of contact which by the atomic law make a crystalline compound, if nature did not continually come short in her own work. How seldom does she complete her crystalline lines to the book-pattern! How seldom does she keep out those foreign matters which prevent the diamond from being of the first water! So that in fact no metallurgic mixture can be expected to be more uniform than our duplicate assays will show it to be, and a good melt of gold may vary two-tenths of a degree; say from .900,0 to .900,2. Where, then, would be the use of assaying to .900,01, if it could be done! that is, to the hundredth of one degree. Some one has shown that the humid assay of silver may be worked to the twentieth part of one degree. He should also show how a pot of metal can be stirred to that nicety.

Then, again, as to dispatch of business. In our present method we work off silver assays in sets of ten, and gold in sets of sixteen. A practiced weigher can get ten silver assays into his bottles in twenty to thirty minutes. Forty minutes more are required for dissolving and finishing. A set of gold assays can be put through in two hours; and in the same time another set will be in the oven while the former set is finishing in the acid. Thus fitting together, we are able to do a great amount of work; some of our busiest years have numbered, say, forty thousand assays.

Now, in the spectrum each assay would have to be wrought out singly: the metallic points for projecting the spark have to be prepared and placed; then the observer has to look for the characteristic lines as to position, color, and number, and for something more, to determine the proportion. In every case these observations would have to be taken for three metals, gold, silver, and copper; and besides, we have to watch for mercury, tin, &c., in certain cases. It will thus be apparent that there would be not much gained, at the best, by spectrum assay, and the gain would be more than lost by this remaining consideration, that a good deal of close observation through the telescope or microscope is trying and injurious to the eyesight, much more so than our work at the balances, which is severe enough.

It affords me much satisfaction to have the opportunity to explain to some extent this interesting subject, and at the same time to let it be known to what state of perfection the assay of gold and silver has been brought.

Very respectfully,

WM. E. DUBOIS, Assayer.

Report of Herbert G. Torrey, assayer United States assay-office, New York, on spectroscopic assay.

In answer to your request for a report upon our experiments in assaying by the spectro-scope, I take pleasure in sending you the following statement:

The experiments bearing upon spectroscopic assay were conducted by means of very inadequate apparatus. Indeed, without appliances especially adapted to this particular work, no definite results are possible. As this mode of analysis, if successful at all, depends upon the relative lengths of corresponding lines in the broken spectrum, the first essential is a device for the accurate measurement of the slight differences of those lines. This involves a micrometric arrangement of the most delicate description, and even if successfully constructed, the nature of the lines and their variability under slight changes in the current, and other varying conditions, would probably render it comparatively valueless.

The following causes of difficulty would exist even with the most perfect appliances for measurement, &c.:

1st. The lines are not of uniform width from end to end, but run to a point and fade out so gradually that the point of termination is by no means certain.

2d. An unequal delivery of the spark, involving inequality in the *length* and brightness of the lines.

3d. Want of homogeneousness in the metal itself, or relative want of it in the two specimens, rolled so as to be different in hardness; or, again, even a difference of *form* of the points used.

4th. The lengthening or shortening of the lines does not correspond with the increase or diminution of the proportion of precious metal present.

The final conclusions from the experiments impress us with the probability that, while the method is exceedingly delicate *differentially*, under certain conditions, its application to quantitative determination is scarcely to be anticipated, at least in the direction of the line of these experimental trials.

Mr. Norman Lockyer, the originator of the method, in discussing the subject in his recent work on solar physics, though expressing hopes of final success, says: "It is clear that further progress must be made before such a method can be practically employed in the arts."

In the preparation of this report I am pleased to acknowledge the important and most valuable assistance rendered by Prof. A. K. Eaton, of Brooklyn, through whom the apparatus was obtained, and by whom several of the most important experiments were conducted.

Very respectfully,

HERBERT G. TORREY, *Assayer.*

COURSE OF THE TRADE-DOLLAR

Letter from the superintendent of the mint at San Francisco to Director of Mint.

SAN FRANCISCO, *September 10, 1874.*

The monthly deposits of silver bars for coinage into trade-dollars, with monthly disbursements of the same coins from January 1, 1874, to August 31, 1874, aggregate as follows:

Date.	Deposits.	Payments.
1874.		
January	\$114,511 68	\$103,860
February	297,534 50	263,201
March	244,537 56	265,074
April	341,558 33	264,624
May	282,148 56	273,417
June	248,179 12	340,664
July	522,198 10	85,999
August	369,236 26	226,419
Total	2,422,904 11	1,823,258

The amount of silver deposits awaiting conversion into trade-dollars August 31, 1874, has an assay-value of \$578,402.78.

At no time since the commencement of the present calendar year has the mint been enabled to accumulate a surplus of trade-dollars, and the public demand has not been fully met.

The limited capacity of the mint and the unusually large coinage of gold, which is given precedence over silver, have materially abridged the supply of this international coin at San Francisco, but the favorable introduction of the trade-dollar into China has almost effectually destroyed the use of the Mexican silver dollar as a medium of exchange between this city and ports in the Chinese Empire. The city banks report an excess of demand for trade-dollar exchange. The coinage capacity of the new mint, shortly to be occupied, will, it is to be hoped, fully meet the requirements for all gold and silver coins. Great care has been taken in the manufacture of the trade-dollar to reach the closest approximate perfection in assay-value, weight, and execution. The coins have successfully passed the critical tests made before their adoption at various Chinese ports, and their commercial use is increasing. They have been officially adopted at Foo-Chow within a recent period, and the chief paymaster of the United States squadron on that coast will probably require this coin for his disbursements as soon as a supply can be relied upon.

The complete success of this exchange-coin in the future appears to depend mainly upon the commercial demand being met by the United States mints.

In relation to the mint supply of the precious metals, it may be interesting to note the coinage of gold at this mint for the past eight months as compared with a similar period for a number of years past, namely:

January 1 to August 31, 1866.....	\$9,612,000
January 1 to August 31, 1867.....	11,250,000
January 1 to August 31, 1868.....	7,035,000
January 1 to August 31, 1869.....	6,795,000
January 1 to August 31, 1870.....	12,533,000
January 1 to August 31, 1871.....	12,560,000
January 1 to August 31, 1872.....	9,920,000
January 1 to August 31, 1873.....	12,972,000
January 1 to August 31, 1874.....	15,325,000

The present season has been favorable for gold-mining, and gulch and gravel enterprises have been prosecuted with successful results.

As a necessary auxiliary to gold and silver mining, the production of quicksilver has received marked attention during the past year, and deposits of cinnabar have been discovered and are being opened up in many localities in this State, and the aggregate yield of recently-found mines compensates for the diminished production of a number of the older quicksilver mines of California.

O. H. LA GRANGE.

VALUE OF AUSTRIAN FLORINS.

JULY 18, 1874.

SIR: I have received your letter of the 14th instant, in which you request an expression of my views in relation to certain questions presented in a copy of dispatch No. 130, dated the 17th ultimo, from the United States consul at Vienna to the Department of State, respecting the value of the florin of Austria, and the manner of estimating the value of the paper florin (a depreciated currency) of the same country.

Having carefully examined the subject, I have the honor to submit the following reply:

The request of the United States consul at Vienna is, that authority be given him to estimate the paper florin according to its market-value in Austro-Hungarian "eight-florin-twenty-franc" gold coins, or in other words, in gold instead of silver, and for the purpose of correcting what he claims is an overvaluation of the florin in the Treasury circular, and which, if allowed, would reduce the assessable surface in the United States of invoices of merchandise imported from Austria about 4 per cent.

The trouble which has arisen in Austria in connection with the florin is, that since silver was adopted by that empire as the measure of value, and the florin declared to be the coined representative of the mint unit of the Austro-Hungarian Empire, an important change in the relative value of gold and silver has taken place, silver having fallen in value, and to the disadvantage of countries of the silver standard, and especially where they have for neighbors countries of the gold standard.

Notwithstanding the issue of the eight-florin-twenty-franc gold coin, and its use in commercial and exchange transactions, as stated by the United States consul, the fact nevertheless remains that silver is the lawful standard or measure of value and the florin the mint unit of the Austro-Hungarian monarchy.

The paper florins are to be redeemed in silver florins, and not in the commercial or trade gold coin, to which the consul refers.

As long as silver continues to be the legal standard of value and the florin the coined representative of the monetary unit of the Austro-Hungarian Empire, invoices of merchandise must be stated in florins and the value of the paper florin estimated as at present.

In view of the foregoing facts, I am of the opinion that the request of the United States consul at Vienna cannot properly be granted.

It appears to be proper for me to add, in connection with this subject, that gold being the standard by which we are required by law to estimate the value of foreign monetary units and coins, and quite an important decline in the value of silver having recently taken place, a corresponding reduction in the valuation of certain silver coins will have to be made on the 1st of January next, the law requiring the Director of the Mint to estimate the value of foreign coins annually, and the Secretary to proclaim the same on the 1st day of January.

The value of silver has hitherto been estimated for international purposes on the assumption that the relative value of gold and silver was as 1 to 15½, and which rate corresponds with the legal rate in countries of the double standard. The average gold-price of silver bullion in London during the present year has been as 16 to 1. An estimate of the value of the florin on this basis will make its gold-value about forty-six cents.

The copy of the dispatch of the United States consul at Vienna is returned herewith.

Very respectfully,

H. R. LINDERMAN,
Director.

Hon. J. B. HARTLEY,
Assistant Secretary of the Treasury.

DEGREES OF FINENESS TO WHICH ASSAYS OF FINE GOLD ARE REPORTED AT SAN FRANCISCO BRANCH MINT.

Report of the commission to the Director of the Mint.

Referring to the letter of the First Auditor of the Treasury and accompanying papers, relative to the mode of reporting assays of fine gold bars at the branch mint, San Francisco, submitted by the Director of the Mint to the undersigned for their opinion, the wastage commission does not consider the instructions of the Secretary to embrace this question, but, as it is a matter incidentally connected with wastage, the undersigned have examined the papers, and have no hesitation in submitting to the Director the following observations :

The first question which presents itself is, whether assays of fine gold bars can be correctly made to the one ten-thousandth. While assayers appear to differ as to the degree of uniformity with which this can be done, the fact is that at the United States Mint and branches fine gold is assayed to that degree for the melter and refiner, and such assays are the basis on which that officer calculates the amount of alloy to be added in the preparation of ingots for coinage. It would, therefore, appear that the depositor of fine gold bars should be settled with on the same basis. This is objected to by respectable authority, on the ground that the fractions between the whole and half thousandth should inure to the benefit of the Government as an offset to wastage. This objection does not appear to be well founded when applied to a mint where the operations of refining and parting are not carried on. The Mint-laws have always provided that the Government should defray the wastage incident to the conversion of fine or standard bullion into coin, and the fraction referred to cannot legally be claimed as an offset for such wastage. The wastage incident to the refining and parting operations has been incurred by the owners of the bullion before it is brought to the mint, and the latter has no claim to fractions as a compensation for wastage which it has not incurred.

An examination of the official statement of the last annual settlement of the melter and refiner at San Francisco, also submitted by the Director, shows that the mode of assaying and reporting fine gold has not resulted in any disadvantage to the Government. The amount of bullion operated on was as follows :

Gold, bullion, 2,153,576.25 ounces	\$40,066,538 14
Silver, 1,454,020.05 ounces	1,691,950 60

The gold wastage was only \$6,095.93, from which, however, should be deducted the gains from the deposit melting-room, estimated at, say, \$2,500, reducing the actual wastage to \$3,595.93, which is a very small amount, and reflects credit on the melter and refiner.

In silver there was a surplus of \$1,072.40 returned by the melter and refiner, which further reduces the actual wastage to \$2,523.53, which is a very trifling amount, considering the magnitude of the operations of the branch mint during the period embraced in the settlement.

Very respectfully,

H. R. LINDERMAN.
R. E. ROGERS.

PHILADELPHIA, July 18, 1872.

